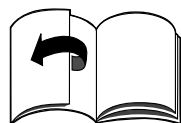


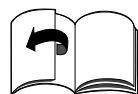
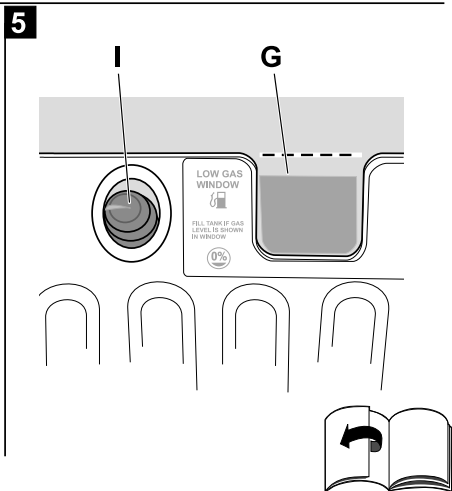
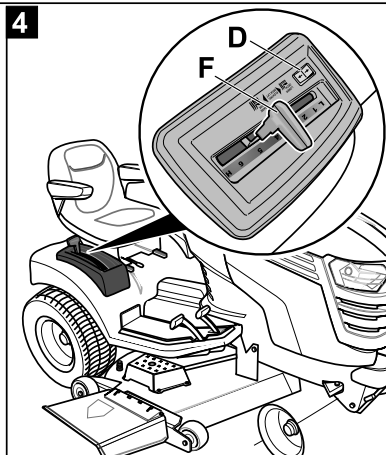
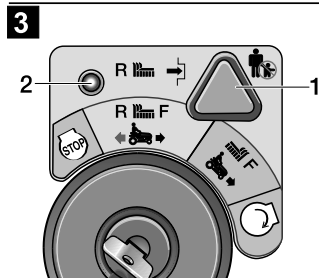
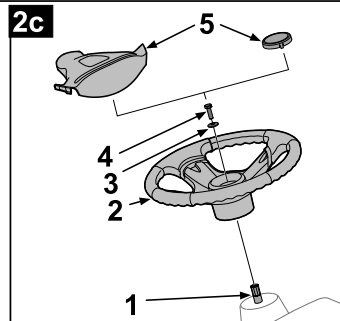
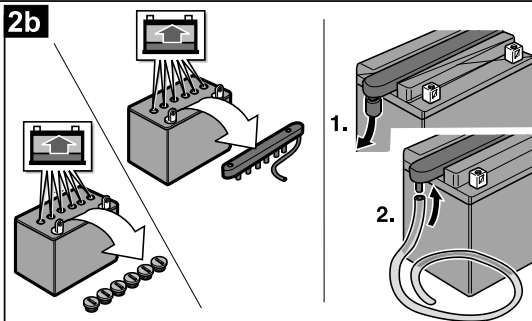
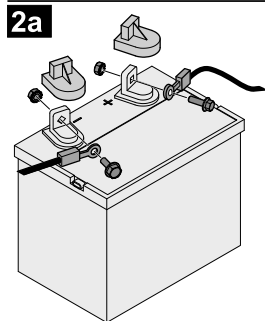
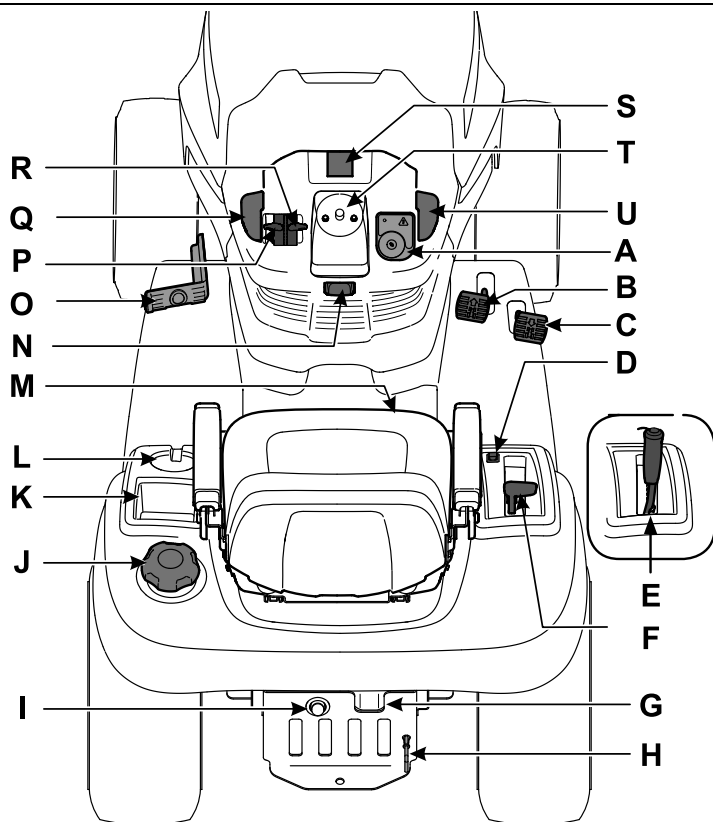
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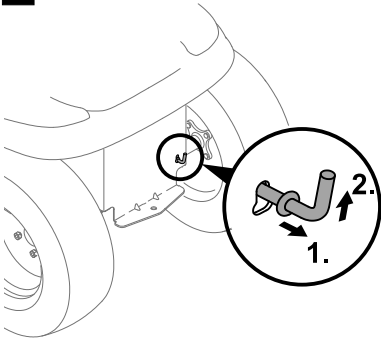
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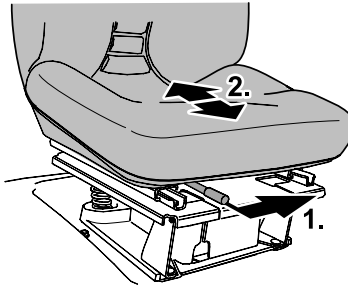
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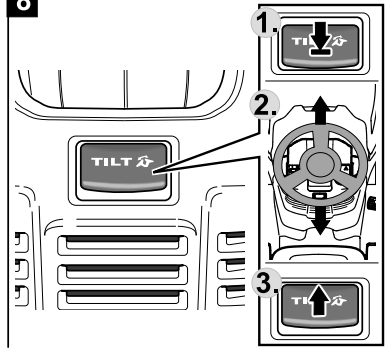
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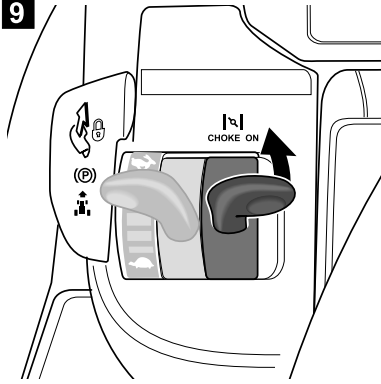
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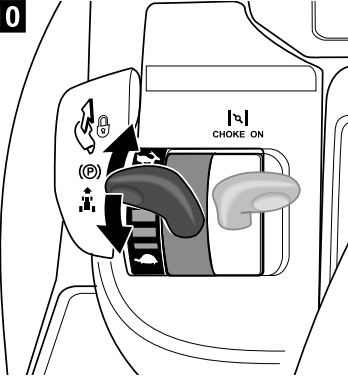
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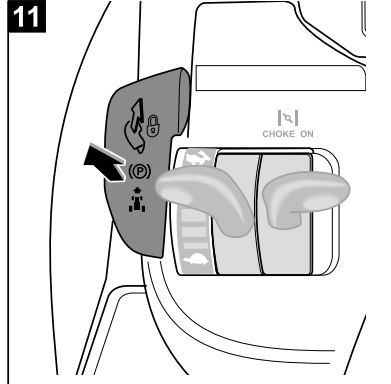
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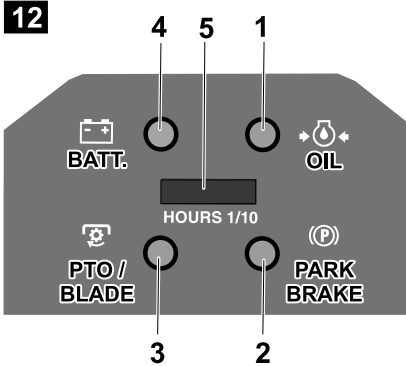
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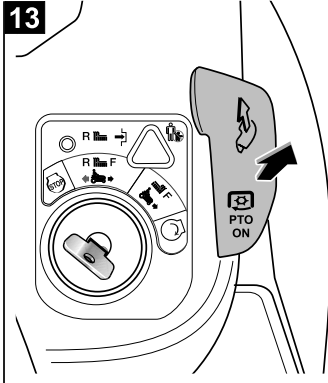
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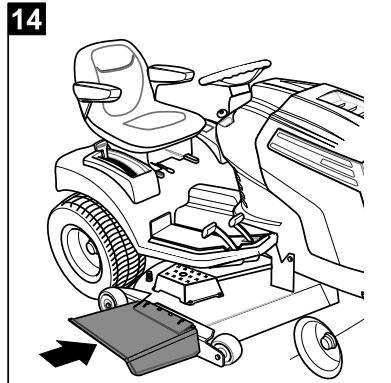
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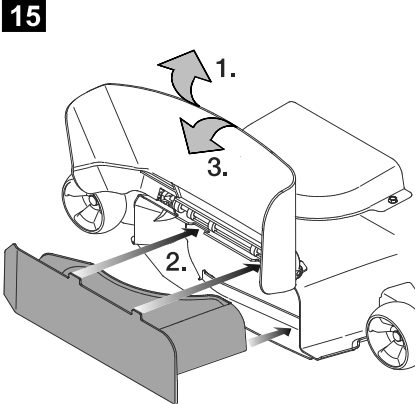
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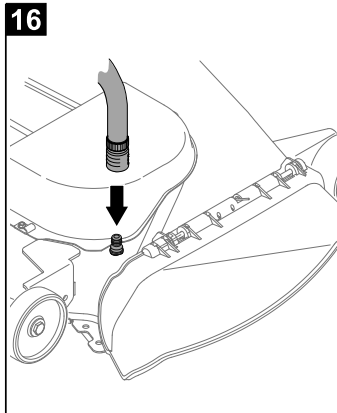
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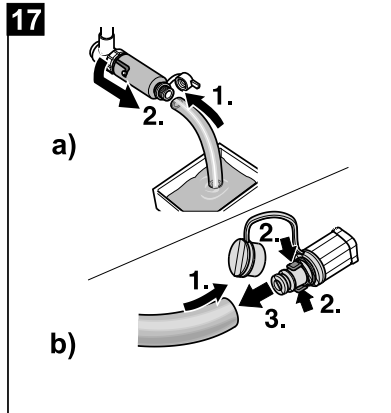
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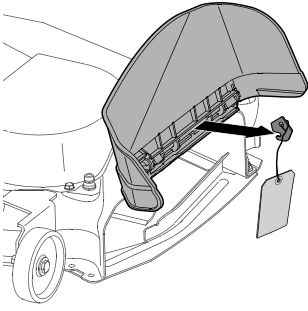
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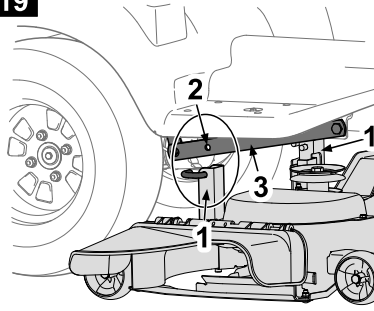
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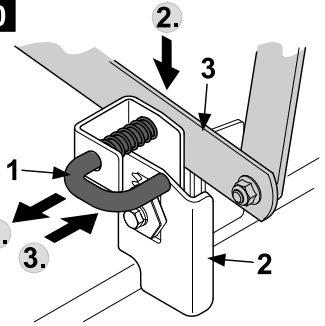
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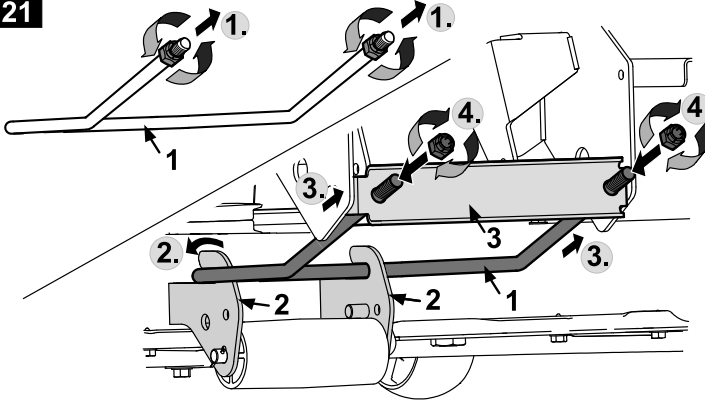
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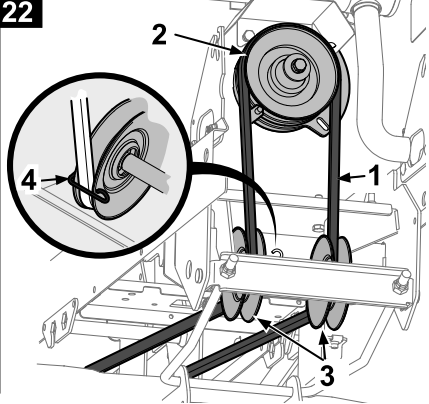
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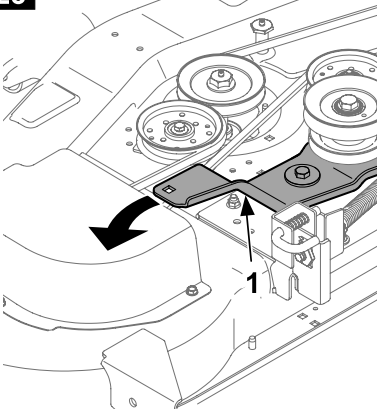
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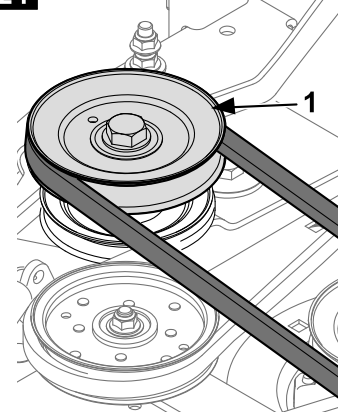
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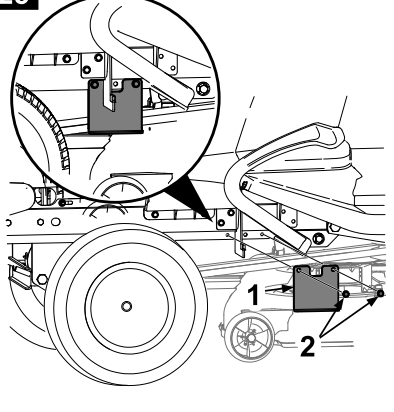
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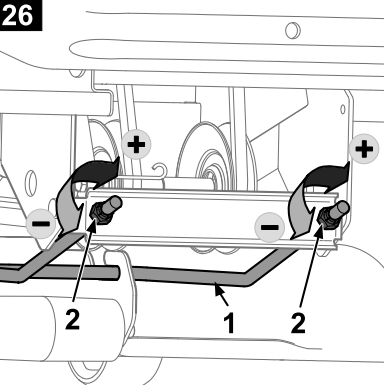
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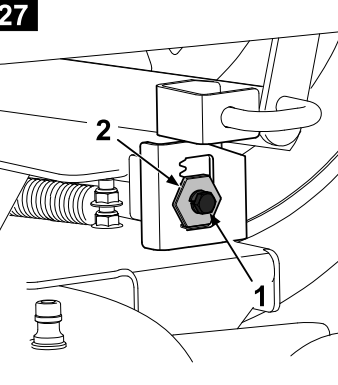
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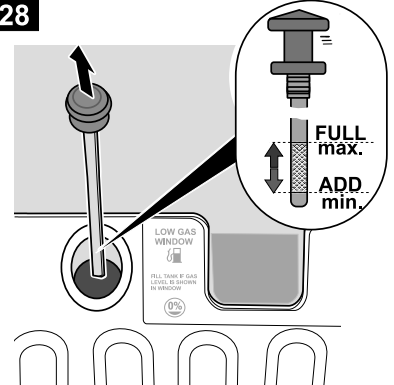
26



27



28





## **English**

(Original operating instructions)



## **Français**

(Notice d'instructions d'origine)



## **Deutsch**

(Originalbetriebsanleitung)



## **Nederlands**

(Originele gebruiksaanwijzing)



## **Italiano**

(Istruzioni per l'uso originali)



## **Español**

(Instrucciones de funcionamiento originales)



## **Svenska**

(Originalbruksanvisning)



## **Dansk**

(Originale driftsvejledning)



Table of Contents

For your safety ..... 4

Assembling the appliance ..... 6

Operation and Display elements . 7

Operating safety ..... 9

Tips on lawn care ..... 11

Transporting the appliance .... 11

Cleaning/Serviceing ..... 11

Installing/removing and  
adjusting cutter deck ..... 13

Shutting down the machine ... 14

Warranty ..... 14

Information about the engine ... 14

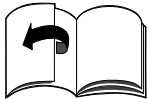
Troubleshooting ..... 14

Information on rating plate

This information is very important for subsequent identification, ordering spare parts for the appliance and for the customer service desk. You will find the identification plate under the driver's seat. Enter all the details on your appliance's rating plate in the following fields.

You will find this and further information about the appliance in the separate CE-declaration of conformity which is a component part of the se operating instructions.

Illustrations



Fold out the illustrated pages at the start of the operating manual. Graphical representations can vary in detail from the appliance which has been bought.

For your safety

Using the appliance correctly

This unit is designed to be used

- as a garden tractor for the conventional application of mowing grass areas or for maintaining parks using appropriate accessories which are expressly authorised for this garden tractor,
- according to the descriptions and safety instructions provided in these operating instructions.

Any other use is not as intended. Improper use is not covered by the warranty and the manufacturer will reject any liability. The user is liable for all damage to third parties and their property.

The manufacturer accepts no responsibility for damages resulting from unauthorised alterations to the unit that have been carried out by the owner or operator.

This mower is not licensed for use on public roads or for transporting people.

General safety notes

Carefully read these operating instructions through before first using the appliance and proceed accordingly.

Tell other users about the correct use of the vehicle.

Only operate the appliance in the technical condition stipulated and supplied by the manufacturer.

Keep these Operating Instructions in a safe place and have them at the ready whenever you use the unit.

With a change of ownership, pass the operating instructions on with the appliance.

Spare parts and accessories must satisfy the requirements specified by the manufacturer.

Therefore use original spare parts and original accessories only or spare parts and accessories authorised by the manufacturer.

Only allow repair work to be carried out from a specialist garage.

Before working with the appliance

Any person intending to use this machine must not be under the influence of intoxicants such as alcohol, drugs or medicines.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Persons under 16 years of age may not operate the appliance.

Local regulations may fix the minimum age.

Before commencing work with the appliance, familiarise yourself with all of the equipment and control elements as well as with their function.

Only store fuel in approved containers and never in the proximity of heat sources (e.g. ovens, hot water tanks). Replace the exhaust, fuel tank or fuel cap immediately if they become damaged.

Attach trailers and accessory equipment in accordance with the guidelines. Driving performance, especially steering, braking capability, and overall stability are affected by attachments, towed items, ballast weights and the weight of a grass catcher when full.

While working with the unit

When working with or on the unit, wear appropriate work clothes (e.g. safety boots, long trousers, tight-fitting clothing, goggles and hearing protection).

Only operate the appliance in a technically flawless state.

Never change the engine settings preset at the factory.

Never refuel the unit while the engine is running or hot. Only fill the tank in the open air.

Avoid naked flames, the formation of sparks and do not smoke.

Make sure that at all times there are no persons, especially children, or animals in the working area.

Check the area in which you intend to use the unit and remove all objects that could be hit and propelled by the unit. You can thus avoid injuries and damage to the unit.

Never mow on slopes that are steeper than 20%. Working on slopes is dangerous; the risk of rollover and sliding is increased.

When working on slopes, always drive off and halt the unit gently and gradually. The transmission should always be engaged when driving down a slope – never coast – and drive at a low speed.

Never drive across the face of a slope, always up and down the slope.

Only use the unit in daylight or with a sufficient level of artificial lighting.

The unit is not authorised for the transport of people.

Never allow passengers on the unit.

## Before any work on the appliance

Protect yourself from injury.

Before doing any work to this appliance:

- turn the engine off,
- remove the ignition key,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled,
- pull off the cap of the spark plug so that the engine cannot inadvertently start.

## After working with the appliance

Only leave the appliance once you have turned off the engine, actuated the parking brake and have removed the ignition key.

## Safety features

Safety features serve to protect you and must always be functional.

You may not make any alterations to the safety features or circumvent their proper functioning.

Safety features are:

### Grass flap

Fig. 14

The grass flap protects you against possible injuries resulting from the cutting blade or objects that are propelled by it.

The unit may only be operated with the grass flap attached.

### Safety lock system

The safety interlock system will not allow the engine to start unless

- the driver is sitting on the seat,
- the brake pedal has been depressed or the parking brake is in the park position,
- the accelerator pedal is on “N”, i.e. is not actuated,
- the cutter deck/accessories are switched off, i.e.: PTO switch or PTO lever in “Off” position (PTO = Power-Take-Off).

The safety interlock system automatically switches the engine off as soon as the operator leaves the seat without actuating the parking brake beforehand.

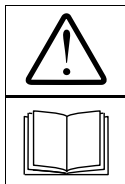
The safety interlock system automatically switches the cutter deck/accessories (PTO) off as soon as the operator leaves the seat, irrespective of whether the parking brake was actuated beforehand.

The safety interlock system automatically switches the cutter deck/accessories (PTO) off as soon as the reverse pedal is actuated (if the OCR function has not been activated).

To switch the cutter deck/accessories on again, first switch the PTO switch off and then switch on again.

## Symbols on the appliance

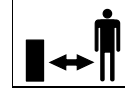
Various symbols are stuck to the appliance in the form of adhesive labels. The following provides an explanation of the symbols.



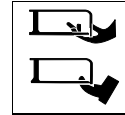
Warning!  
Please read the operating instructions before putting lawn-mower into operation!



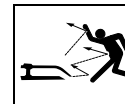
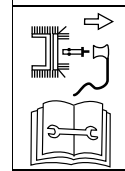
Keep third parties away from the danger area!



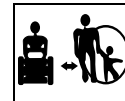
Risk of injury from rotating blades and other rotating parts.



Always remove the spark plug connector before working on the cutters!  
Keep fingers and feet well away from the cutters! Always switch off the appliance and remove the spark plug connector before adjusting, cleaning or checking it.



Risk of injury from propelled grass or solid objects that are propelled.



There must be no persons, especially children, or animals in the area of operation.



Working on steep slopes increases danger.



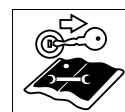
Warning!  
Risk of explosion.



Battery acid/risk of chemical burns.



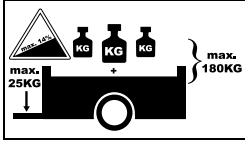
Beware of hot surface!



Withdraw the key from the ignition before all work on the unit and observe the instructions in this document.



When getting on and off, never step on the cutter deck!



If operating with an attached trailer, do not exceed the following maximum values:

Max. gradient	14%
Max. support load on the trailer coupling	25 kg
Max. trailer load (trailer and load)	180 kg
Keep these symbols visible on the appliance.	

## Symbols used in these instructions

The following symbols are used in these instructions:



**Danger**  
Your attention is drawn to dangers in connection with the action described and through which there is a danger to persons.



**Warning**  
Your attention is drawn to dangers in connection with the action described which could involve material damage.



**Note**  
Points out important information and tips concerning application.

## Details concerning position

Where a position on, or in relation to, the unit is described (e.g. left, right), this is always from the perspective of the driver, sitting on the driver seat and facing forward.

## Note concerning the disposal of packaging

Any waste packaging or waste appliances etc. which accumulate should be disposed of according to the local regulations.

## Assembling the appliance



**Note**  
To be able to move the tractor manually, the gear release lever must be in the appropriate position. See section "Control and display elements – gear release".

## Commissioning the battery



### **Risk of poisoning and injury from battery acid**

*Wear protective goggles and gloves. Prevent battery acid from coming into contact with skin.*

*If battery acid sprays into your face or eyes, wash immediately with cold water and contact a doctor. If you have swallowed battery acid by accident, drink lots of water and immediately call a doctor.*

*Keep batteries out of the reach of children. Never tilt the battery; the battery acid may run out.*

*Give waste battery acid to your dealer or a disposal company.*



### **Warning** **Risk of fire, explosion and corrosion due to battery acid and battery acid gases**

*Immediately clean parts of the appliance upon which battery acid has been sprayed. Battery has a corrosive effect.*

*Do not smoke and keep burning and hot objects away.*

*Store batteries in rooms which are well ventilated and dry.*

*There is a risk of a possible short circuit when working with the battery. Do not place any tools or metal objects on the battery.*



**Note**  
The battery is located under the bonnet of the engine.

## If a "maintenance-free/sealed" battery (type 1) is supplied

(Battery without filler plugs)

The battery is filled with battery acid and is sealed at the factory. However, even a "maintenance-free" battery requires maintenance if it is to have a longer service life.

- Keep the battery clean.
- Avoid tipping the battery. Electrolyte fluid leaks from a "sealed" battery, if it is tipped.
- Before using the battery for the first time, charge it using a battery charger (max. charging current 12 Volt/6 Ampere) for 1 to 2 hours. After charging the battery, first pull out the battery charger plug, then disconnect the battery (see also operating instructions for the battery charger).

## If an empty battery (type 2) is supplied

(Battery with filler plugs)

Fig. 2

- Remove the filler plugs of the battery cells.
- Slowly fill each cell with battery acid to 1 cm below the filler hole.
- Let the lead in the battery absorb the battery acid for thirty minutes.
- Check the level of the battery acid, add more if necessary.
- Before using the battery for the first time, charge it using a battery charger (max. charging current 12 Volt/6 Ampere) for 2 to 6 hours. After charging the battery, first pull out the battery charger plug, then disconnect the battery (see also operating instructions for the battery charger).
- Re-insert the filler plugs of the battery cells.
- Install the battery in the appliance.
- Remove the strip seal from the battery vent. Connect the venting hose so that the free end points downwards in the appliance. The hose must always allow free passage! (Fig. 2b)
- First connect the red cable (+), and then the black cable (-).
- Thereafter, use only distilled water to top up the battery (check every 2 months).
- Keep the battery clean.

**Warning**

Observe the order in which the battery is mounted when connecting/disconnecting the terminals.

Fitting:

- First connect the red cable (+/positive pole) and then the black cable (-/negative pole).

Removal:

- First disconnect the black cable (-/negative pole) and then the red cable (+/positive pole).

## Installing the steering wheel

Fig. 2c

- Connect steering wheel (2) to steering shaft (1).
- Place on top the washer (3) with the convex side up, and secure the steering wheel with the screw (4).
- Insert cover cap (5, depending on model).

## Operation and Display elements

**Warning.**

### Damage to the appliance.

The control and indicator functions will be described to begin with.

Do not perform any functions at this stage!

Fig. 1

- A Ignition lock with OCR function
- B Forward pedal
- C Reverse pedal
- D Switch for electric cutter deck lifter \*
- E Lever for setting the cutting height \*
- F Lever for setting height/depth of the cutter deck \* (only in conjunction with electric cutter deck lifter)
- G Tank contents display
- H Lever for the gear release lock
- I Dipstick/Filler inlet for gear oil
- J Fuel tank/Filler inlet
- K Storage bin
- L Can holder
- M Adjusting lever for seat
- N Steering wheel adjusting lever \*
- O Brake pedal



- P Throttle/Choke
  - Q Switch for parking brake/Speed control
  - R Choke
  - S Display cluster \*
  - T Steering wheel (not illustrated)
  - U PTO-switch
- (\* depending on model)

### Ignition lock with OCR function (A)



Fig. 3

This ignition lock features an OCR function (= user-controlled mowing in reverse gear).

**Start:**


Turn the key to the right  until the engine is running, then release. The key at  **F** (normal) allows moving in the drive direction.

**OCR position:**

Turn key to left of normal position to reverse mowing position **R**  **F**  and press the switch (1).

The indicator light (2) comes on and indicates to the user that the unit can now mow in reverse and forward gear.

**Stopping:**

Turn the key to the left, to .

**Note**

Do not use the OCR function unless absolutely necessary, otherwise work with the key in the normal position. The OCR function switches off automatically as soon as the key is turned to the normal position or the engine is switched off (stop position or disconnection of the engine by the safety interlock system).

### Forward pedal (B)

Fig. 1

The pedal controls the speed in a forward direction.

### Reverse pedal (C)

Fig. 1

The pedal controls the speed in a reverse direction.

**Information on forward/reverse pedal**

The further the pedal is pressed forwards, the faster the unit moves. To stop or change direction of travel, release the appropriate pedal.

### Switch for electric cutter deck lifter (D) (depending on model)

Fig. 4

Is used to lift and lower the cutter deck (only in conjunction with the lever for setting the height/depth of the cutter deck).

**Lower cutter deck** = press switch forwards.

**Lift cutter deck** = switch backwards.

**Note**

The cutter deck is only lowered until the height, preset with the lever for setting the height/depth of the cutter deck, is reached.

### Lever for setting the cutting height (E) (depending on model)

Fig. 1

Is used to raise and lower the cutter deck.

**Largest cutting height**, cutters top = lever to "HI/12".

**Smallest cutting height**, cutters bottom = lever to "LO/1".

### Lever for setting the height/depth of the cutter deck (F) (depending on model)

Fig. 4

Is used to preselect the required height setting of the cutter deck (only in conjunction with electric the cutter deck lifter).

**Largest cutting height**, cutters top = lever to "HI/6".

**Smallest cutting height**, cutters bottom = lever to "LO/1".

**Note**

To adjust the cutter deck, first lift it all the way using the switch for the electric cutter deck lifter.

## Tank contents display (G)

Fig. 5

As soon as the fuel level has reached the area of the inspection window (1), the fuel should be topped up.

## Lever for the gear release lock (H)

Fig. 6

To push the unit when the engine is switched off.

- Pull out lever and press upwards.  
To drive the unit, push lever down and press in.

The lever is situated on the rear panel of the machine.

## Dipstick/Filler inlet for gear oil (I)

Fig. 5

For checking the level or adding gear oil.

## Fuel tank/Filler inlet (J)

Fig. 1

## Storage bin (K)

Fig. 1

## Can holder (L)

Fig. 1

## Adjusting lever for seat (M)

Fig. 7

Pull the lever, and adjust the seat.

## Steering wheel adjusting lever (N) (depending on model)

Fig. 8

This adjusts the position of the steering wheel.

- Press and keep pressed the lever.
- Adjusting the steering wheel.
- Release the lever. Ensure that the steering wheel engages correctly.



## Brake pedal (O)

Fig. 1

The brake pedal can be used to brake quickly, to engage and disengage the locking brake, and to switch OFF speed control.



## Choke (P/R) (depending on model)

Fig. 9

To start a cold engine, move the choke forwards to Position  (Fig. 9) or the throttle to position  (Fig. 10).

## Throttle (P)

Fig. 10

The engine speed can be adjusted continuously. Fast engine speed = . Slow engine speed = .

## Switch for parking brake/Speed control (Q)

Fig. 11

This switch has a dual function:

### Actuate the parking brake:

Press brake pedal all the way and pull switch. Release the brake pedal.

Release the parking brake:

Press down the brake pedal fully, the switch disengages.

### Switching on Tempomat :

When driving, press the switch.

The forward speed selected at this point (but not top speed) is maintained, and the drive pedal can be released.

When the accelerator pedal or the brake pedal is depressed, the cruise control automatically switches off.

## Note

The Tempomat functions for forward travel only.

## Display cluster (S) (depending on model)

Fig. 12

According to the model, the combination indicator can consist of the following elements.

### Oil pressure (1):

The indicator light is lit while the engine is running, immediately switch off engine and check oil level. Where necessary, visit a garage.

### Brake (2):

Indicator lamp lights up if the brake pedal is not depressed or the parking brake is not locked when the engine starts.

## Cutter deck/Accessories (PTO) (3):

Indicator lamp lights up if the cutter deck/accessories (PTO) is not switched off when the engine starts.

### Battery charge indicator (4):

If the indicator light lights up when the engine is running, this means that the battery is not sufficiently charged. Where necessary, visit a garage.

### Operating hour counter (5):

This function shows the operating hours as full hours and  $\frac{1}{10}$  of an hour in the display.

## Optional functions:

- When the ignition is switched on, the battery voltage indicator is indicated for a short period and then the operating hours are indicated. The operating hours are always counted except for when the ignition key is in the “Stop” position or when it is removed.
- Each time 50 operating hours have elapsed (according to the model), the oil change indicator “CHG/OIL” appears in the display for five minutes. This message appears after the next two hours of operation. See the engine manual for oil change intervals.

## Steering wheel (T)

Fig. 1

## PTO-switch (U)

Fig. 13

The PTO switch switches the cutter deck/accessories on and off via an electromechanical clutch.


**ON** = pull the switch.

**OFF** = press the switch.

## Note

When the safety lock system has automatically switched OFF the appliance (e.g. when reversing with activated cutters), first switch ON and then OFF the PTO switch to release the lock on the clutch.

## Light (depending on model)

The headlights are on for as long as the engine is running or the ignition key is outside the Stop position .

## Operating safety

Follow the notes in the engine manual as well!

### **Danger**

#### **Risk of injury**

No person, especially children, and/or animals should be allowed to stand close to the mower while it is in use. They could be injured by stones or similar objects that might be thrown out. Children must not operate the appliance.

Be particularly careful when mowing in reverse gear (units with OCR switch). Ensure that all persons are outside the working area of the unit. Never empty the grass catcher while the engine is still running.

While emptying the grass catcher, you yourself or some other person could be injured if the contents of the catcher are ejected at high speed. When mowing on steep slopes, there is a risk of the mower tipping over and you could be injured as a result. Do not drive across the face of a slope, but only straight up and down. The unit may only be driven on slopes up to max. 20%. Never turn on a slope.

If the ground is wet the mower could slip due to reduced traction and overturn. Mow only when the grass is dry. Excessive speed can increase the risk of an accident.

Maintain a safe distance at all times from particularly steep slopes, trees, bushes and hedges.

Pay particular attention when you are travelling in reverse while mowing at the same time.

Check the area in which you intend to use the unit and remove all objects that could be hit and propelled by the unit.

If the cutting tool hits a foreign object (e.g. stone) or if the machine starts vibrating violently: stop the engine immediately.

Before using the unit, have it checked for damage by a specialist company. In the case of mowers with rotary blades, never stand in front of grass ejection holes.

Never place your hands, feet, or other parts of the body near rotating parts. Switch OFF the engine, remove the ignition key, and disconnect the spark plug terminal before you clear the ejector of blockages and other hindrances.

Do not use the unit in adverse weather conditions, e.g. if there is a probability of rain or a storm.

#### **Risk of suffocation from carbon monoxide**

Only allow the combustion engine to run in the open air.

#### **Risk of explosion and fire**

Fuel and petrol vapours are volatile and fuel is highly flammable.

Before starting the engine, fill with fuel. If the engine is still hot or running, keep the fuel tank closed.

Only fill with fuel when the engine is turned off and has cooled down.

Avoid naked flames, the formation of sparks and do not smoke.

Only fill the tank in the open air.

Do not start the engine if fuel has been filled up and has overflowed.

Wipe the affected areas clean and wait until the fuel has vaporised.

To avoid the risk of fire, keep the following parts free from grass or oil leaks: engine, exhaust, battery, fuel tank.

### **Danger**

#### **Risk of injury due to defective unit**

Only operate the appliance in a flawless state. Carry out a visual check each time before using the appliance. Pay particular attention to safety devices, the cutting mechanism and its supporting brackets, operating controls and threaded connections, and check that they are not damaged and are securely attached. Replace damaged parts before operating.

### **Operating times**

Observe the national and local regulations concerning the hours when the appliance can be used (where necessary, enquire at your appropriate local authority).

## Before each use

Check:

- all protective features,
- the engine-oil level (see the engine handbook),
- the fuel level,
- the tyre pressure,
- ventilation slots in the lower area of the dashboard,
- side panels, accessory equipment, air filter area for dirt and debris.

## Refuelling and checking the oil level

### **Note**

The engine has already been filled with oil at the factory – please check the oil, if required refill.

- Fill up with lead-free petrol, see handbook for engine.
- Fill the fuel tank to a maximum of 2 cm below the lower edge of the filler neck.
- Turn the fuel tank stopper tight.
- Check engine oil level. The oil level must be between the “FULL/max.” and the “ADD/min.” markings (see also the engine handbook).
- Checking the gear-oil level (Fig. 28):
  - Park the unit on level ground.
  - Clean the area around the filler opening.
  - Withdraw the dipstick from the filler opening.
  - Wipe off the dipstick.
  - Check the oil level. The oil level must be between the two marks “FULL/max.” and “ADD/min.”
  - If required, pour oil in the oil-filling orifice (use only hydrostatic gear oil of the brand “Shell Rotella TTF-SB” – contact your dealer).
  - Re-insert the dipstick and check that it is secure.

## Check the tyre pressure

### **Note**

For manufacturing reasons, the tyre pressure can be higher than necessary.

- Check the tyre pressure. Correct where necessary (see section “Servicing”).
  - front: 0.8 bar
  - rear: 0.7 bar

## Preparing for operation

- Park the appliance on a firm level surface and lock the parking brake.
- Conduct all work with the engine switched off.
- Remove the ignition key.

For all work on moving parts:

- Open the bonnet and disconnect the cable to the spark plug.

## Set the driver seat

Fig. 7

- Take your place on the driver seat.
- Adjust the seat to the desired position. Ensure that it engages correctly!

## Setting the steering wheel

Fig. 8

- Take your place on the driver seat.
- Move steering wheel to required position. Ensure that it engages correctly!

## Setting the cutting mechanism wheels (depending on model)






The cutter wheels should never be lower than 6–12 mm above the ground at the lowest cutter position. The cutter wheels are not designed to bear the loads generated by the cutters and may have to be offset accordingly.

## Starting the engine

- Sit in the driver seat.
- Switch off cutter deck/accessories: Switch off PTO and lift up cutter deck.
- Push the brake pedal down fully or lock the parking brake.
- Do not actuate accelerator pedal (= N position).


### Note

Units with hydrostatic drive are in the "N" position when the accelerator is not actuated.

- Move the throttle to the middle position (between  and .
- To cold-start the engine, pull the choke or move the accelerator lever to .
- Turn the ignition key to  until the engine is running (attempt to start the engine for max. 5 seconds, wait 10 seconds before attempting to start the engine again). When the engine is running, set the ignition key to .

- Slowly push back the choke.
- Return the accelerator lever until the engine runs smoothly.

## Stopping the engine

- Move the throttle to the middle position.
- Let the engine run for approx. 20 seconds.
- Set ignition key to .
- Remove the ignition key.
- Engage the locking brake before leaving the appliance.

## Driving


### Danger

*Abrupt takeoff, stopping suddenly, and driving at excessive speeds raise the risk of accidents and can cause damage to the unit.*

*Never set/adjust the driver's seat or steering wheel while driving.*

### Note

Be especially cautious when reversing. Never change direction without first stopping the appliance.




- Start the engine as stated.
- To ensure adequate power output, move the throttle to .
- Release the parking brake: Press down fully the brake pedal, and release it.
- Slowly engage the drive pedal until you have reached the speed you want.


## Stopping the appliance

- Release the accelerator.
- Press the brake pedal until the appliance is stationary.

## Mowing

### Note

- In normal mowing mode  F (see Operation, Ignition lock): Before reversing, switch off and lift up the cutter deck.
- In reverse mowing mode  R F  (see Operation, Ignition lock): Exercise particular care when mowing in reverse and activate only if absolutely essential.
- Do not change direction when the appliance is coasting or driving.

- Start the engine as stated.
- To ensure adequate power output, move the throttle to .
- Switch on the cutter deck.
- Lower the cutters.
- Release the parking brake: Press down fully the brake pedal, and release it.
- Slowly depress the forward drive pedal for forward direction of travel and speed. The appliance starts moving.

## General information

When adjusting the cutting height and driving speed, ensure that the machine is not overloaded. Depending on the length, type, and dampness of the grass it may become necessary to adjust the cutting height and appliance speed for the optimum grass catcher performance. If blockages occur, reduce the driving speed and increase the cutting height.

## The best way to mow


Cut the first two rounds so the cut grass is thrown out sideways into the middle.

- Never allow the grass to grow too long.
- Never cut the grass too low.
- Drive in a straight line.
- Never mow at high speed, particularly when a mulching kit or grass catcher is installed.

## Mulching

Various appliances can also mulch when fitted with the corresponding accessories. Ask your specialised dealer for details.

## Switching off the machine

- Stopping the appliance: Release the accelerator press brake pedal until the appliance is stationary.
- Switch off the cutter deck/accessories.
- Move the throttle to the middle position.
- Raise the cutters to the top.
- Set the ignition key to  after twenty seconds.
- Engage the locking brake before leaving the appliance.
- Remove the ignition key.

## Pushing units with hydrostatic drive

Fig. 6

Push the appliance only when the engine is switched OFF.

- Release the parking brake.
- Unlocking the gear drive:

Pull out the lever, and press it up.

Return the gear lock lever before restarting the engine.

## Tips on lawn care

### Mowing

Lawns consist of various grass types. Frequent mowing promotes the growth of grass, resulting in strong roots and a firm sward. If you seldom cut the grass, you will enhance the development of high-growing types of grass and other weeds, such as clover, daisies ...).

The normal height of a lawn is approx. 4–5 cm. The grass should only be cut back by  $\frac{1}{3}$ rd of the overall height at any one time, i.e. cut the lawn back to its normal height when it has reached 7–8 cm. Try not to cut the grass shorter than 4 cm, otherwise the lawn will suffer during dry periods. If the grass has grown particularly high (for example, during a holiday period), cut it back to its normal height in several stages.

### Mulching with accessory (optional)

The grass is chopped up fine (approx. 1 cm) during mowing and is left on the lawn. The lawn therefore retains a lot of nutrients. Please note the following:

- Do not mow wet grass.
- Never mow more than max. 2 cm of the total grass length.
- Drive slowly.
- Have the engine at max. rpm.
- Clean the mower cover regularly.

#### Note

Attach mulching accessory depending on the model. Assembly examples in Fig. 15.

## Transporting the appliance

If changing location, drive the lawn tractor short distances only. otherwise transport it by vehicle.

#### Note

The mower is not approved for public thoroughfares in accordance with StVO.

### Short distances

#### Danger

*Solid objects may be hit/propelled by the rotating cutting mechanism causing damage.*

- Always switch off the cutting mechanism before moving the mower.

### Long distances

#### Warning

#### **Transport damages**

*The mode of transport used (e.g. transport vehicle, loading ramp) must be used in accordance with guidelines (refer to the respective operating instructions).*

*When transporting, secure the mower against slipping.*

#### **Environmental hazard from leaking fuel**

*The appliance must not be tilted when it is transported.*

- Have the transporting vehicle ready.
- Lay the loading ramp to the transporting vehicle.
- With the unit in free-wheel, push it up onto the transporting vehicle (disengage the transmission in the case of units with hydrostatic drive).
- Lock the parking brake.
- Secure the machine to prevent it from moving.

## Cleaning/Serviceing

#### Danger

#### **Risk of injury from engine starting unintentionally**

*Protect yourself from injury. Before doing any work to this appliance:*

- turn the engine off,

- remove the ignition key,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled,
- remove the spark plug connector on the engine in order to prevent the engine from accidentally being started.

## Cleaning

### Cleaning the machine

#### Warning

*Do not use a high-pressure cleaner for cleaning the vehicle.*

- If possible, clean the machine directly after mowing.
- Park the unit on a solid, even surface.
- Lock the parking brake.

#### Note

There is a particularly high risk of rust and other corrosion when the appliance is used in the winter. Clean the appliance thoroughly after every use.

### Cleaning the cutting mechanism

#### Danger

#### **Risk of injury from sharp cutters**

*Wear protective gloves.*

*On appliances with several cutters, moving one cutter can cause all other cutters to move at the same time. Take special care when cleaning cutting mechanisms.*

#### Warning

#### **Damage to engine**

*The mower must not be tilted to an angle greater than 30°. Fuel may run into the combustion chamber causing engine damage.*

- Raise the cutting mechanism fully.
- Clean the area surrounding the blade using a scrubbing brush or cloth.

## Cutters with cleaning nozzle (optional)

Fig. 16

Place the appliance on an even surface free of debris, stones, etc., and engage the locking brake.

1. Use a commercially available quick-release coupling to attach a water hose. Turn on water.
2. Start the engine.
3. Lower the cutters, and switch ON for a few minutes.
4. Switch OFF the cutters and engine.
5. Detach the water hose.

Repeat steps 1 to 5 for the second cleaning nozzle (if provided).

At the end of cleaning (steps 1 to 5):

- Raise the cutters to the top,
- start the engine, and switch ON the cutters for a few minutes to dry them.

## Cleaning accessories

- See instructions in the operating manual for the accessories.

## Servicing the vehicle

Observe the servicing guidelines in the engine manual.

At the end of the grass-cutting season, have the appliance checked and serviced in a specialist workshop.

### **Caution**

#### **Engine oil is hazardous to the environment**

*Pass on any waste oil which comes about through an oil change to a collection point or a waste disposal company.*

#### **Risk of pollution from batteries**

*Used batteries do not belong to do-mestic rubbish.*

*Pass on used batteries to a dealer or a waste disposal company.*

*Dismantle the battery before the vehicle is scrapped.*

## Using jump leads

### **Danger**

*Never bridge a defective or frozen battery with jump leads.*

*Ensure that the units and the jump lead clips do not touch each other and that the ignitions are switched off.*

- Connect the red jump lead to the positive terminal (+) of the flat battery and the donor battery.
- Connect the black jump lead first to the negative terminal (–) of the donor battery. Connect the other clip to the frame of the engine block of the tractor with the flat battery (as far away from the battery as possible).

### **Note**

If the donor battery is installed in a vehicle, this vehicle must not be started during the jump starting process.

- Start the tractor with the flat battery and actuate the parking brake.
- Disconnect the jump leads in reverse sequence.

## Tyre pressure

### **Warning**

*Never exceed the maximum permitted tyre pressure (see side of tyre). When pumping up the tyres, do not stand in front or above them.*

The recommended tyre operating pressure is:

- front: 0.8 bar
- rear: 0.7 bar

Over-inflating reduces the longevity of the tyres. Tyre pressure should be checked before every journey.

## After 5 operating hours

- First engine oil change. See engine manual for subsequent intervals.
- Use the oil channel or (optional) quick oil drain (Fig. 17).

## After 10 operating hours

- Lubricate all rotating and bearing points of the accelerator pedal and brake pedal with several drops of light oil.
- Clean battery terminals.
- Change gear oil/gear oil filter for the first time. This work should be performed at a specialised workshop.

## Every 25 operating hours

- Lubricate all cutter shafts, idlers, and idler mounts with 251H EP type grease applied to their respective grease nipples.

This work should be performed at a specialised workshop.

- Lubricate the wheel bearings and front wheel axes with 251H EP type grease applied to their respective grease nipples.
- Lubricate wheels of the cutter deck via the grease nipples using a multi-purpose grease.
- Lubricate steering shaft and steering housing via the grease nipples using grease type 251H EP. This work should be performed at a specialised workshop.

## Every 50 operating hours

- Grass residue and other soiling on the drive gears must be removed at a specialised garage.
- Change gear oil/gear oil filter. This work should be performed at a specialised workshop.

## Every 2 months

- For battery type 2 only – Fill battery cells with distilled water up to 1 cm beneath the filling aperture.

## If necessary

### **Charging the battery**

When the appliance is not used for longer periods, we recommend removing the battery from the appliance and charging this before and every two months during storage and before the appliance is again put into operation.

### **Note**

Note the information in the operating instructions for your battery charger.

### **Replace the fuse**

- Replace defect fuses only with the equivalent rating.

## Once a season

- Apply multipurpose grease to the teeth on the steering gear.
- Lubricate the steering linkage with a few drops of light oil.
- Lubricate all moving parts and bearing surfaces with a few drops of oil (control levers, cutting height adjustment).
- Clean the spark plug and check the gap between the electrodes or replace the plug. See engine handbook.

- The rear axles must be lubricated with a special-purpose (water-repellent) grease at a specialised garage.
- Have the cutting blade sharpened or replaced in a specialist workshop.

### **Note**

Regularly check (when visiting your workshop) the condition of the mower deck V-belt.

## Installing/removing and adjusting cutter deck

### **Danger**

#### **Risk of injury from engine starting unintentionally**

Protect yourself from injury. Before doing any work to this appliance:

- park the appliance on a level surface,
- turn the engine off,
- remove the ignition key,
- switch off PTO,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled,
- remove the spark plug connector on the engine in order to prevent the engine from accidentally being started.

### **Danger**

#### **Risk of injury from sharp cutters.**

Wear protective gloves.

## Assembly

### **Note**

Work proceeds faster when you are assisted by a second person.

### Mounting the cutting mechanism

- Move the cutting height setting lever into the top catch (HI/16).
- or
- For units with electric cutter deck lifter: Move lever for setting the height/depth to the lowest position (LO/1) and press the switch for the electric lifter backwards.
  - Push cutter deck from the right side under the tractor.

Fig. 19

- Align cutter deck so that the rear cutter deck holders (1) are under the locating holes (2) of the lifting arms (3).
  - Lower lifting arms (3):
    - Move cutting height adjustment lever to the lowest notch (LO/1).
- or
- For units with electric cutter deck lifter: Press switch for the electric lifter forwards.

Fig. 20

- Pull out the J-handle (1) on the left cutter deck holder (2). Lift the back of the cutter deck slightly until you can press the J-handle into the locating hole of the lifting arm (3). Ensure that it engages correctly.
- Repeat this work step on the right side of the cutter deck.

Fig. 21

- Remove the two nuts from the fixing bracket (1).
  - Attach fixing bracket (1) to the holders (2) on the cutter deck.
  - Insert the ends of the fixing bracket into the locating holes of the holder (3) on the tractor.
  - Screw the two nuts back onto the fixing bracket.
- Note: Do not tighten the nuts yet.

### Attaching the drive belt

### **Note**

The “V” side of the drive belt must be in the belt pulleys.

Fig. 22

- Place drive belt (1) on the engine coupling belt pulley (2) (PTO).
  - Feed drive belt downwards and place on the two deflection belt pulleys (3).
- Note: On the right deflection belt pulley the V-belt guide (4) must be bent outwards slightly so that the drive belt can be attached. After attaching the drive belt, bend V-belt guide back!
- Feed drive belt backwards and attach it to the cutter deck.

Fig. 23

- Press belt pulley holder (1) on the cutter deck backwards, the belt pulley moves forwards.

Place the drive belt on the belt pulley (1, Fig. 24). Slowly feed the belt pulley holder back.

### **Risk of injury.**

The belt pulley holder is under strong spring tension – work with extreme caution!

- Check that the drive belt is positioned correctly on all belt pulleys.

### Installing the spacer (stop for the cutter deck lifter)

Fig. 25

### **Note**

The spacer must be installed before the cutter deck is set.

- Using the screws (2), attach the two holders (1) to the right and left sides of the tractor frame.

### **Note**

If the cutter deck has a cutting width of 107 cm, only one spacer is attached to the left side of the tractor frame.

### Removing the transport securing device at the ejector flap

Fig. 18

Depending on the model remove the locking plate or cable tie. The deflector closes automatically.

### Setting the cutter level

### **Warning**

After installing the cutter deck, set the cutter deck level.

### **Note**

Before aligning the cutters check the tyre pressure on the appliance.

### Set the level from front to back.

Fig. 26

- Move the cutter deck to a medium height position.
- Carefully turn the outer cutters (risk of injury) parallel to the drive direction.
- Measure the distance between the ground and the end of the right cutter. The end of the front cutter should be about 6–10 mm lower than the end of the rear cutter. You may have to adjust the front receiver (1). Set the correct level by adjusting the nuts (2) equally.

## Setting the side level

Fig. 27

- Move the cutter deck to a medium height position.
- Carefully turn the outer cutters (risk of injury) transverse to the drive direction.
- Measure the distance between the ground and the ends of the two outer cutters. The result should be identical. To obtain the correct level you may have to turn the adjusting segment (2) on the left cutter side. To do this, first loosen the screw (1) (do not remove) and, after setting the cutter deck, retighten.

## Disassembly

Perform the steps mentioned above (Installing the cutter deck) in reverse sequence to remove the cutter deck again. Work proceeds faster when you are assisted by a second person.

## Shutting down the machine



### Attention

#### Material damage on the unit

*Store the mower with engine cooled down only in clean, dry areas. Always protect the mower against rust if it is to be left for comparatively long periods, e.g. over the winter.*

At the end of the grass-cutting season or if the mower is not going to be used for longer than one month:

- Clean the mower and the grass catcher.
- Protect all metal parts against rust by wiping them using an oiled cloth or spray with spray oil.
- Recharge the battery using a battery charger.
- Before winterising the appliance, remove the battery. The battery must then be charged and kept in a dry, cool place (protected against frost), and recharged every 4 to 6 weeks and before the next use.
- Drain out the fuel (in an open space) and prepare the engine for storage as described in the handbook for the engine.
- Check the tyre pressure.
- Park the mower in a clean, dry room.

## Warranty

In each country, the guarantee conditions apply which are given out by our company and/or the importer. We are happy to repair damage to your appliance free of charge within the scope of the guarantee in as far as the damage is believed to be caused by a material or a manufacturing fault. In making a claim against the guarantee, refer to place where the vehicle was sold or the nearest branch office.

## Information about the engine

The engine manufacturer is liable for all problems related to the engine regarding performance, measuring performance, technical data, guarantee and service. You will find information in the separately enclosed owner's/operator's manual provided by the manufacturer.

## Troubleshooting





### Danger

#### Risk of injury from engine starting unintentionally

*Protect yourself from injury. Before doing any work to this appliance:*

- turn the engine off,
- remove the ignition key,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled,
- pull off the cap of the spark plug so that the engine cannot inadvertently start.

Faults when operating your appliance often have simple causes which you should know about and which you can partly deal with yourself. In case of doubt, your specialist garage will be happy to help you further.

Problem	Possible cause(s)	Remedy
Starter does not react.	Safety interlock system has actuated.	To start the engine, first sit down on the driver's seat. Press down fully the brake pedal or engage the locking brake. Switch off PTO.
	Battery not connected properly.	Connect the red cable to the positive (+) terminal on the battery and the black cable to the negative (-) terminal on the battery.
	Empty or weak battery.	Check the battery, charge it or exchange it.
	Fuse has tripped.	Exchange fuse. If the fuse trips repeatedly, find the cause (usually short-circuit).
	Loose earth (ground) lead between engine and frame.	Connect the earth (ground) lead.
Starter runs, but engine does not start.	Choke and throttle at wrong position.	Actuate the choke. Move the throttle to the middle position (between  and  ).
	Carburettor not receiving any fuel, fuel tank empty.	Top up with fuel.
	Defective or dirty spark plug.	Check spark plug; see engine manual.
	No ignition spark.	Have ignition checked in repair shop.
Engine emits smoke.	Too much oil in engine.	Switch OFF appliance immediately. Check engine oil level.
	Defective engine.	Switch OFF appliance immediately. Get the engine checked in a specialist garage.
Excessive vibration.	Damaged blade drive shaft or defective cutting blade.	Switch OFF appliance immediately. Have defective parts replaced in a specialist workshop.
Cutting mechanism does not discharge grass or cuts unevenly.	Engine speed too low.	Increase throttle.
	Travelling speed too high.	Set to a lower travelling speed.
	Cutting blade is blunt.	Arrange for service agent to sharpen or replace blade.
Engine is running, cutter deck is not mowing.	V-belt torn.	Have the V-belt replaced in a repair shop.