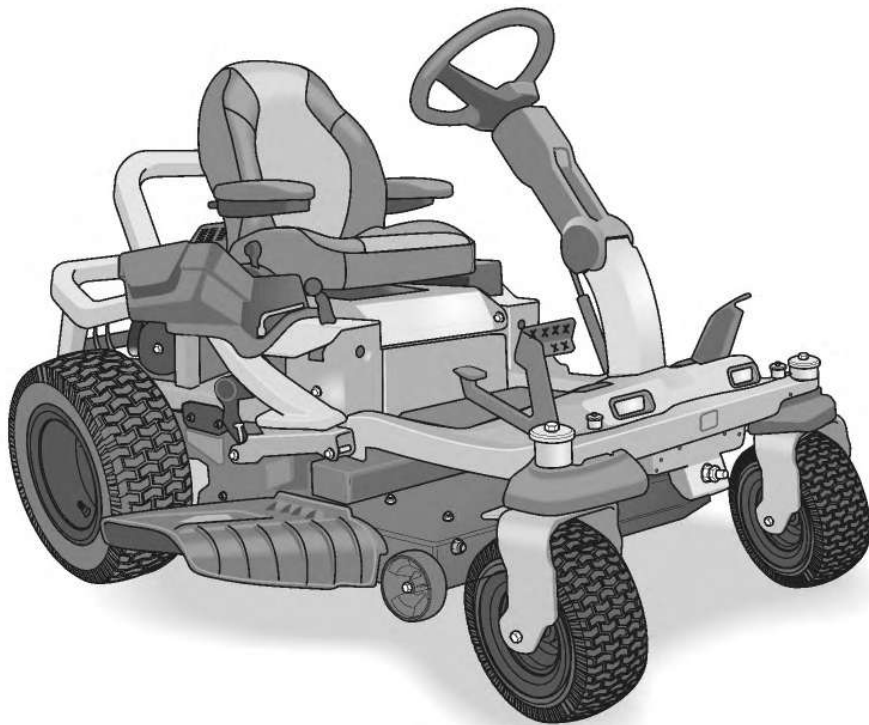


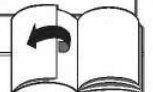
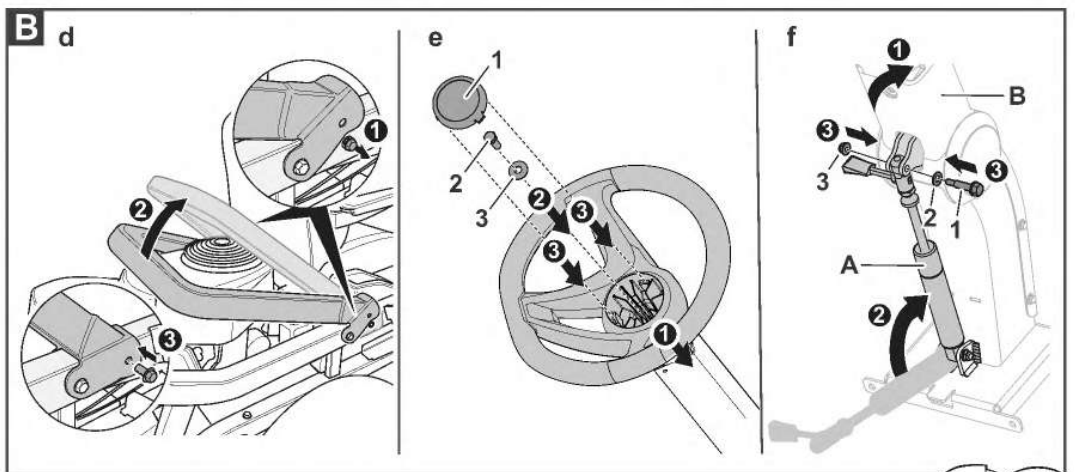
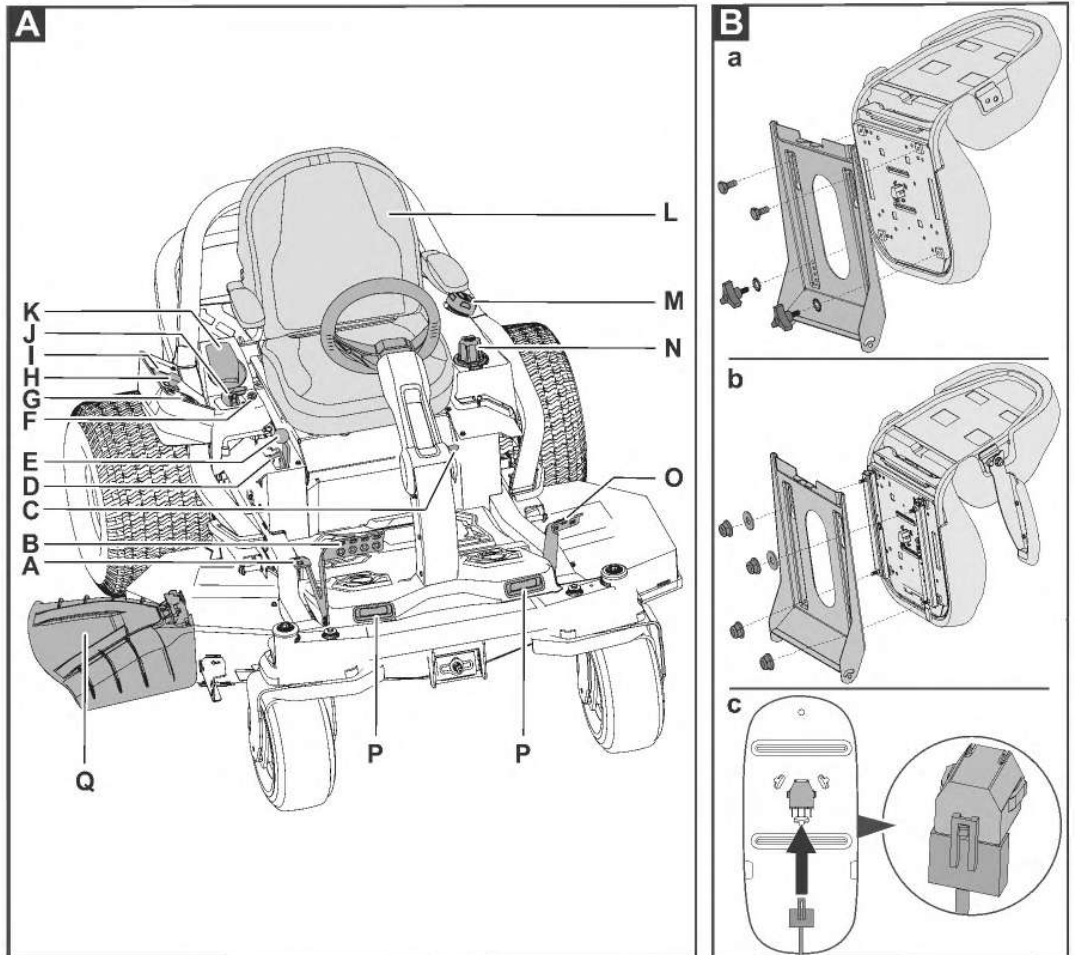
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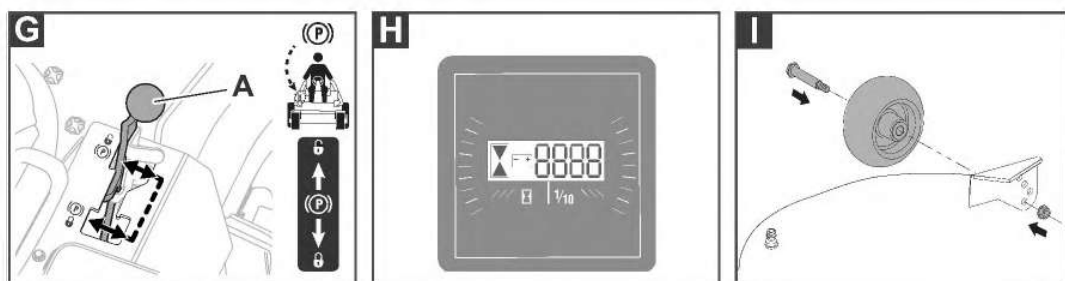
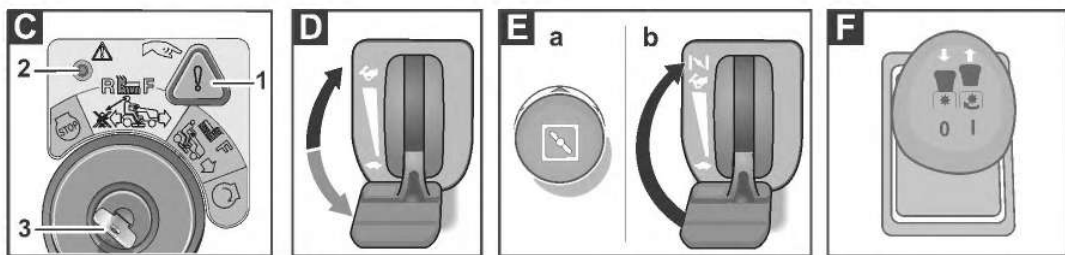
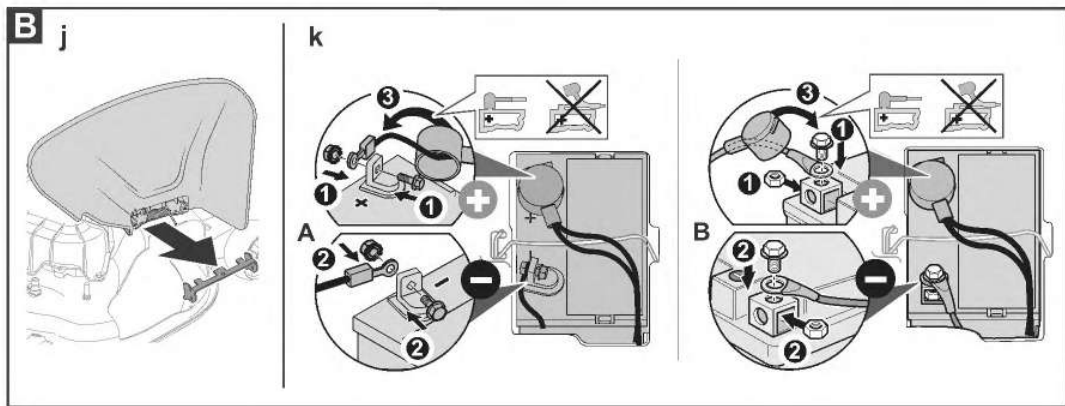
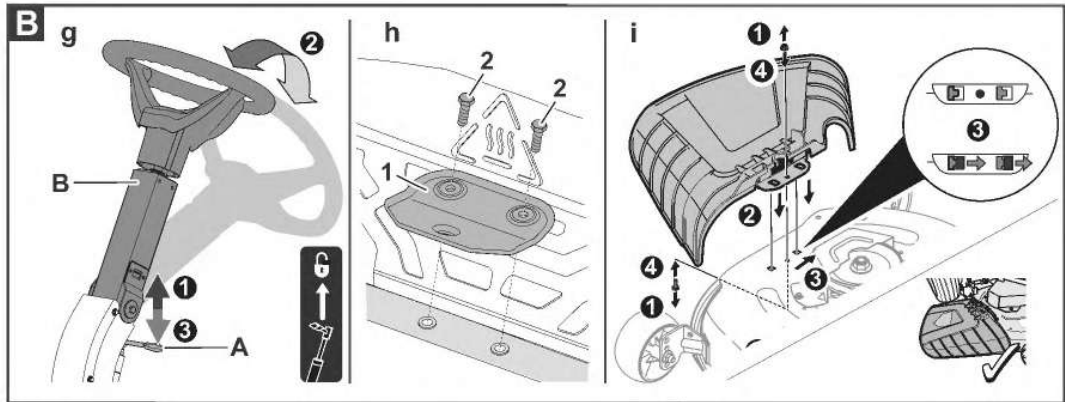


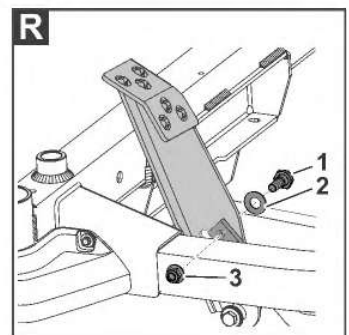
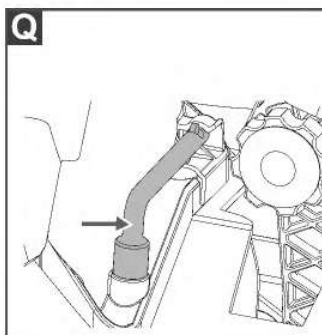
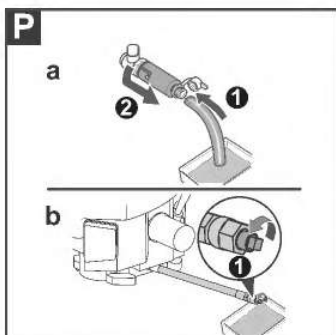
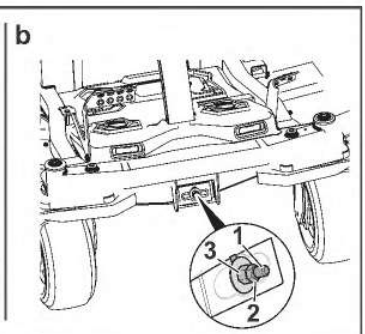
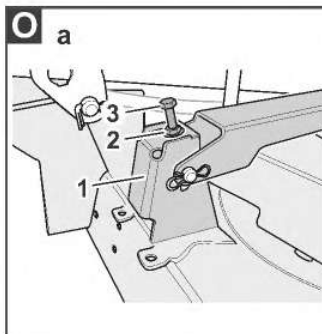
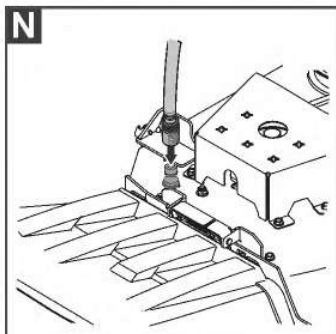
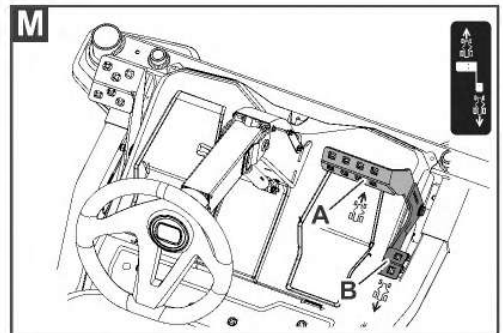
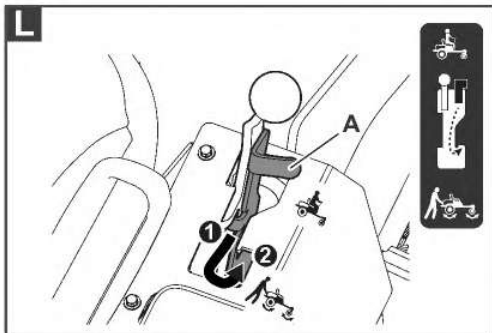
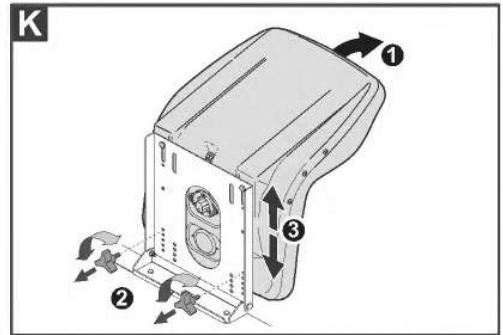
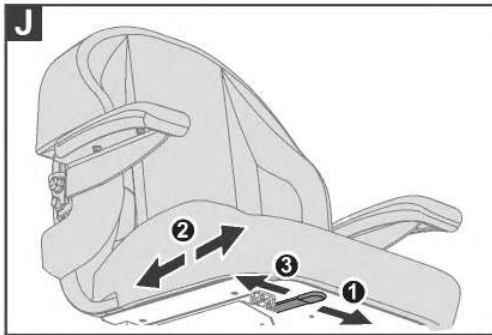
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MTD Products Aktiengesellschaft • Saarbrücken • Germany

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Contents

Meaning of the symbols.....	8
For your safety.....	9
Safety information.....	9
Intended use.....	13
Identification plate.....	13
Safety equipment.....	13
Assembly.....	13
Operating elements.....	15
Start-up.....	16
Operation.....	16
Servicing.....	20
Removing/installing and adjusting the cutter deck.....	23
Storage.....	23
Transport.....	24
Troubleshooting.....	24
Information on the engine.....	25
Warranty.....	25
CE Declaration of Conformity.....	26
Environmentally-friendly disposal.....	26



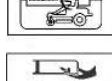
Warning! Rotating blades

Risk of injury due to rotating blades or other moving parts. Keep hands and feet away from rotating parts. Keep hands and feet away from the mower.



Caution! Bystanders

Keep third parties out of the danger area.



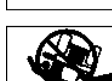
Danger! Unintended activation

Prior to working on the device, pull the spark plug connector. Keep hands and feet away from rotating parts.



Caution! Items flung around

Items may be seized and flung around by the device.



Warning! Risk of falling

Do not operate the device on slopes with a gradient greater than 35 %.



Danger! Risk of explosion



Warning! Risk of chemical burns from battery acid



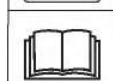
Caution! Wear safety goggles.



Meaning of the symbols



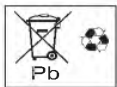
Warning!
Read the operating instructions prior to installation and start-up.



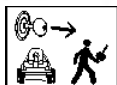
For your safety



Danger! No fires, sparks, naked flames or smoking



Attention!
Do not dispose of used batteries with domestic waste.



Warning!
Always remove the ignition key before getting off the device.



Danger! Unintended activation
Prior to working on the device, remove the ignition key. Follow the instructions in this manual.



Attention!
Do not stand on the cutter deck.



Warning! Hot surface



Warning!
Only operate the device with an attached and lowered deflector flap or the mulch locking part.



Note
Always keep these symbols in a legible condition. Replace damaged or illegible symbols.

For your safety

Danger levels of warning information

The following danger levels are used in these operating instructions, to indicate potentially dangerous situations:

⚠ DANGER!



A dangerous situation is highly likely and, if the measures are not followed, will result in severe injury and even death.

⚠ WARNING!



A dangerous situation may occur and, if the measures are not followed, will result in severe injury and even death.

⚠ CAUTION!



A dangerous situation may occur and, if the measures are not followed, will result in slight or minor injuries.

Attention!

A possibly harmful situation may occur which if not avoided will result in property damage.

Safety information content

⚠ DANGER!



Type and source of the danger!
→ Consequences of non-observation
➢ Measure for preventing the danger

Safety information



Before using your device for the first time, read these operating instructions carefully and observe the instructions. Please store away these operating instructions for later use or future owners.

- Before using for the first time, you must read the safety information!
Failure to observe the operating instructions and safety instructions can result in damage to the device and danger for the operator and other persons.
- Make sure that you are familiar with all controls and how to use them correctly.
- All persons involved with the initial set-up, operation and servicing of the device, must have appropriate qualifications.

The making of unauthorised changes or conversions is not permitted

Do not make any changes to the device or convert it to make other machinery. Such changes can result in personal injury and incorrect operation.

- Repairs to the device must only be performed by trained persons who have been instructed to do so. When doing so always use original spare parts. This ensures that the safety of the device is maintained.

Safety information

Information symbols in this manual

The signs and symbols in this manual should help you to use the manual and device quickly and safely.



Note

Information to ensure the most effective and practical use of the device.

→ Action step

Requires you to perform an action.

✓ Action result

This is the result of a sequence of action steps.

[1] Item number

Item numbers are indicated in the text by square brackets [].

A Illustration label

Illustrations are numbered with letters and identified in the text.

① Step number

The defined sequence of action steps is numbered and identified in the text.

Protection of yourself and others

- Do not let children or persons who have not read these operating instructions use the device.
- Do not permit children under the age of 16 to handle this power tool or perform other work on the device, such as maintenance, cleaning, adjustment, etc. Local regulations may determine the minimum age for users.
- Any person intending to operate this mower must not be under the influence of intoxicants such as alcohol, drugs or medicines.
- Do not use the device if you have not received appropriate training or are tired or ill.
- Exercise caution and do not reach into the cutting blades.
- Remember that the operator is responsible for accidents involving other persons and/or their property.
- This device may be used by persons with limited physical, sensory and mental abilities or a lack of experience and knowledge if they are being supervised or have been trained in how to use the device safely and they understand the dangers associated with it.
- Do not put the device in operation if there are people (especially children) or animals in immediate proximity.
- Ensure children do not play with the device.

- Stop working if you notice people (especially children) or pets in proximity.
- When working with or on the device, always wear anti-slip shoes, long trousers and other appropriate personal protective equipment (protective goggles, protective helmet, hearing protection, work gloves, etc.) Wearing personal protective equipment reduces the risk of injuries. Avoid the wearing of loose clothing or clothing with hanging cords or belts. Working without ear protection may result in loss of hearing.

Before use

- Before you begin work, make sure that you are familiar with the device, its controls and how to operate it.
- Before each use, check if all control devices, operating elements, starting locks as well as operating buttons and switches are functioning properly. Have damaged devices that do not function properly repaired or, if necessary, replaced by a service centre.
- Check whether all fixing elements (nuts, bolts and screws, etc.) are tightly fit to ensure that the device is operated safely.
- Only operate the device in a technically faultless state. Never change the engine settings pre-configured in the factory. Have damage repaired by a qualified technician or service centre.
- Remove the adjustment tool or wrench before switching on the device. A tool located in the rotating cutting tools area may lead to injuries.
- Check the deflector flap for damage and tight fitting.
- Before mowing, make sure that the lawn is free from branches, stones, wire etc. and look out for such objects the whole time when mowing. Items may be seized and flung out.
- Check (by means of visual inspection) whether the cutting blade and their fixings are blunt, damaged or deformed.
- Never use a device with defective, damaged or missing safety/protective equipment. Safety/protective equipment are a component of the device, are there fore your protection and must always be functioning. You must not modify safety/protective devices, remove them or bypass their function. Have damaged safety/protective devices repaired or, if necessary, replaced by a technician or service centre.
- Connect trailers or attachment devices carefully. 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.

Safety information

Tips for use

- **Do not mow lawns with a grass height over 25 cm.**
- **Drive carefully.** Reduce your speed before turning.
- **Do not use the device in potentially explosive atmospheres which contain flammable liquids, gases or dusts.** The tool can generate sparks which could ignite dust or vapours. Prevent naked flames, formation of sparks, and do not smoke.
- **Take particular care when mowing or driving in reverse.** To prevent accidents, drive slowly and glance at the ground behind you as you do so.
- **Adjust the cutting height only when the engine is switched off and the cutting tool is stationary.**
- **Never open the deflector flap while the engine is still running.**
- **Never drive over gravel or footpaths with the cutters running.** There is a risk of stone chips.
- **Do not mow overgrown, dry grass (e.g. field grass) or dry piles of leaves. Do not park the device on dry grass or leaves.** Risk of fire from contact with hot exhausts and when dry grass or leaves gather on the hot mower.
- **Pay attention to traffic when working on roads or crossing them.** The device is not designed for use on public roads.
- **Take extra care with opening and closing the grass catcher; there is a risk of crushing.**
- **Never stand in front of the grass discharge openings.**
- **Never empty the grass catcher while the cutter deck is running.** While emptying the grass catcher, you or others may be injured by cut grass and objects being flung out.
- **Maintain a safe distance at all times when mowing near lawn edges (e.g. beside particularly steep slopes, ditches, or under trees, and by bushes and hedges).**
- **If the cutter deck comes into contact with a foreign body (e.g. a stone), or if the device starts to vibrate unusually, switch the engine off immediately.** Inspect the device for damage before continuing operation. If necessary, take it to a service centre.
- **Do not use the device without the cutter deck attached.** The subsequently altered weight distribution can cause the device to tip over.
- **Switch the engine off and remove the ignition key before you clear the ejector channel of blockages or other hindrances.**

- **Be particularly careful when reversing with the cutter deck switched on.** Only reverse with the cutter deck switched on if absolutely necessary.

Notes on vibrations

- **Vibrations can cause nerve damage and impair the blood circulation in the hands and arms.**
- **When working in the cold, wear warm clothing and keep your hands warm and dry.**
- **Take breaks.**
- **If you notice that the skin of your fingers or hands goes numb, tingles, hurts or goes white, stop working with the machine and, if necessary, consult a doctor.**

Mowing on steep slopes

- **Do not mow or drive on slopes with inclines of greater than 35 %.**
- **Always drive transverse to the slope and not up and down it. Do not turn on slopes.** Working on slopes is dangerous. The device could topple over or skid. If there is no other choice, drive down inclines slowly and carefully.
- **Never attempt to stabilise the machine by placing your feet on the ground.**
- **Always drive on slopes as cautiously as possible and brake carefully.** When descending, keep the engine engaged and drive slowly. Take particular care when changing direction.
- **Do not use any heavy attachment devices, e.g. transport trailers, grass catchers or garden rollers, on slopes with an incline of more than 9 %.**
- **If operating with an attached trailer, or parts fastened to the trailer coupling, they must not exceed the following maximum values:**
 - Max. gradient 9%
 - Max. support load on the trailer coupling 22 kg
 - Max. trailer load (trailer and load) 113 kg

After use

- **If you leave the seat of the device, always switch off the engine.** Always remove the ignition key and engage the parking brake.
- **Ensure that ventilation slots are free from dirt.**
- **Let the engine cool down before you store the device.**

Safety information

Before carrying out any work on the device

➤ **Protect yourself against injury by doing the following prior to all performing work on the device:**

- Switch off the engine
- Remove the ignition key
- Engage the parking brake
- Wait until all rotating parts have come to a standstill
- Wait until the engine has cooled down
- Pull the spark plug connector off the engine so that the engine cannot inadvertently start.

General safety instructions

- **Never leave the engine running in buildings or poorly ventilated spaces.** Risk of fatality due to carbon monoxide poisoning!
- **Spare parts and accessories must meet the requirements specified by the manufacturer.** You should therefore only use original spare parts/accessories, or those which have been approved by the manufacturer. Always observe the installation instructions supplied with the parts during replacement. The use of spare parts or accessories not approved by the manufacturer can represent a significant safety risk.
- **Arrange for repairs to be performed solely by a qualified expert or workshop.**
- **Do not carry passengers on the device.** The device is not licensed for transporting people.
- **This device is designed for maintaining grass and lawns in a domestic setting.** Due to dangers posed to the body of the user or other persons, the device must not be used for purposes other than those intended.
- **Operate the unit in daylight or adequate artificial lighting only.** Keep your work area clean and well illuminated.
- **Escaping hydraulic fluids or other such pressurised liquids can cause severe injuries. Never attempt to feel leaks with your hand!** Use a piece of paper or cardboard to do this. Wear gloves and some protective goggles when checking the device for leaks. If liquid gets into the eyes, seek immediate medical attention. Never carry out checks, if pressurised systems/lines remain under pressure. Only allow service centres to work on pressurised systems or lines.
- **Regularly ensure that the cutting blades come to a standstill about five seconds after the cutter deck is switched off (this can be detected audibly because rotating cutting blades produce a wind noise).** If the cutting blades do not stop within this time frame, the device should be checked by a service centre.
- **Ensure maintenance work is always performed to schedule so that the device remains in a safe condition.** Deficient improper maintenance may lead to device damage and thus to injury.
- **The engine and exhaust become hot and can lead to burns.** Do not touch!
- **Only use the mower in dry weather conditions.** Keep the mower away from rain or dampness. If used on wet grass, the device may slip because of reduced adhesion.
- **Do not use the device if it is raining or there is a risk of storms.**
- **Do not start the engine if any petrol has been spilt.** Push the device away from the area where the petrol was spilt and wait until the petrol fumes have evaporated.
- **Handle fuel with care. Fuel and petrol vapour is explosive and petrol is extremely flammable.** Do not refill the fuel tank while the engine is running or still hot. Only refuel the device outside. Store fuel in approved containers only and never close to sources of heat (e.g. heaters, stoves or hot-water boilers). Have a damaged exhaust unit, fuel tank or fuel cap replaced.
- **To prevent a fire hazard, keep the engine, exhaust, battery, the fuel tank and the hydraulic parts free from grass and leaking oil.**
- **Also follow the instructions in the engine handbook.**

Intended use

This device is designed to be used

- as a lawn tractor for mowing lawns in the house garden and leisure garden,
- with accessories which are approved expressly for use with this lawn tractor,
- in accordance with the descriptions and safety information given in these operating instructions

Any other use is classed as an unintended use.

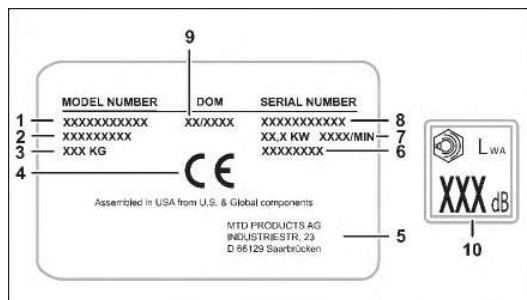
Improper use is not covered by the warranty and the manufacturer will reject any liability. The user is liable for injuries to third parties and damage to their property.

Unauthorised changes to the device exclude liability of the manufacturer for any resulting damage and/or injury.

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

Identification plate

You will find the identification plate under/in front of the driver's seat.



Layout (model-dependent)

- 1 Model number
- 2 Model name
- 3 Weight
- 4 CE mark
- 5 Manufacturer
- 6 Device name
- 7 Power / engine speed (rpm)
- 8 Serial number
- 9 Year of manufacture
- 10 Guaranteed sound level

Safety equipment

Deflector flap **A** [Q]

⚠ CAUTION!



Contact with the cutting blade and items flung out

➔ Risk of injury

➤ Only operate the device with a deflector flap attached and lowered.

Safety locking system

The safety locking system will only allow the engine to start when

- The driver is sitting on the seat.
- the cutter deck has been switched off; i.e.: PTO switch set to "O/Aus/Off" (PTO = Power-Take-Off).
- the parking brake is applied (park position).

Dependent on the version, the safety locking system automatically switches the cutter deck (PTO) or engine off as soon as the operator leaves the seat with the cutter deck (PTO) activated, irrespective of whether the parking brake was previously actuated. The safety locking system automatically switches the engine off as soon as the operator leaves the seat without actuating the parking brake beforehand.

In devices without an OCR function or with a deactivated OCR function, the safety locking system prevents reversing with the cutting mechanism activated (automatic shutdown of the cutting mechanism).

Prior to reversing, switch off the cutting mechanism using the PTO switch.



Note on the PTO switch

In the case of automatic shutdown through the safety locking system (e.g. reversing or leaving the seat with the cutting mechanism activated), first switch the switch off, and then back on again, to release the clutch lock (PTO).

Directional references

Directional references on the device (e.g. left, right, etc.) always refer to when facing forwards.

Assembly



Note

To be able to move the device manually, the gear release lever must be in the appropriate position. Refer to the section "Operation – Pushing the device".

Attaching the seat **B a-c**

- Remove the cable ties that secure the seat during transport.
- Fit the seat (dependent on the seat design) on the seat plate:

a: Seat without adjustment lever:

In the rear area with two screws and in the front area using two tommy screws with washers.

b: Seat with adjustment lever:

Using 4 flange nuts and 2 washers.

c: Plug the cable connector onto the seat contact plug

- If necessary, attach the cable connector to the seat contact switch and ensure that the cable is routed so that it is not damaged or squashed.



Note

The device cannot be started without a connected seat contact switch.

Aligning the upper bow-shaped handle of the rear frame **B d**

The bow-shaped handle is folded down for transport.

- Remove the two screws from the rear frame **1**.
- Fully fold out the bow-shaped handle **2**.
- Attach the bow-shaped handle to the rear frame using the previously removed screws - tightening torque 18-27 Nm **3**.

Installing the steering wheel **B e**

- Remove the cover cap **1** from the steering wheel.
- Remove screw **2** and washer **3**.
- Bring the wheels into a straight position.
- Place the steering wheel on the steering shaft.
- Position washer **3** with curved face upwards.
- Secure the steering wheel using the screw **2**.
- Put on the cover cap **1**.

Fitting the adjusting cylinder of the steering column adjustment mechanism **B f**



Note

Only necessary for devices, where the steering column adjusting cylinder is not fitted for transport reasons.

- Raise the steering column **B** and maintain it in position **1**.
- Raise the adjusting cylinder **A** and secure it using shoulder screw **1**, washer **2** and flange nut **3** on the mounting bracket of the steering column, tightening torque 14-16 Nm **2/3**.



Note

The shoulder screw, washer and flange nut are contained in the device's accessories kit or they are already loosely pre-fitted on the bracket or adjusting cylinder.

Setting up the steering column **B g**



Note

Only for devices where the steering column has been folded down for transport.

- Pull the steering column adjustment lever **A** upwards and move the steering column **B** into the desired position **1/2**.
- Release the steering column adjustment lever **A** to lock the steering column in this position **3**.



Note

Ensure the steering column is correctly locked/engaged.

The steering column can be set to various heights. For more on this, please refer to the section "Operation – Fitting the steering column".

Attaching the trailer coupling (optional; depending on the model) **B h**

- Fix the trailer coupling **1** to the rear panel of the device using screws **2**.

Fitting the deflector flap on the cutter deck **B i** (model-dependent)

- Remove the ignition key, which is secured to the mounting of the discharge opening of the cutter deck with a cable tie (model-dependent).
- Remove the screw **1** and nut **2** on the discharge opening of the cutter deck **1**.
- Position the deflector flap on the cutter deck so that the lugs on the deflector flap sit in the recesses on the cutter deck **2**.
- Push the deflector flap right back **3**.
- Secure the deflector flap with the screw **1** and nut **2** on the discharge opening of the cutter deck **4**.

Removing the transport lock on the deflector flap **B j** (model-dependent)

- Remove the ignition key, which is secured to the mounting of the discharge opening of the cutter deck with a cable tie (model-dependent).
- Remove the safety plate or the cable ties (depending on the version).
- ✓ The deflector flap closes automatically.

Removing the mulching stopper/mulching wedge from the cutter deck (model-dependent)

For transport reasons, it may be that, dependent on the model and version, there is an optional mulching stopper/mulching wedge in the discharge opening of the cutter deck. This must be removed from the discharge shaft prior to start-up of the cutter deck for conventional mowing (side discharge of the cuttings) or when operating the device with an optional grass catcher.

Putting the battery into operation

DANGER!



Risk of fire, explosion and corrosion caused by battery acid and gases emitted by battery acid

- Battery acid is corrosive. Immediately clean all parts of the device splashed by battery acid.
- Do not smoke; keep burning and hot objects away.
- Charge batteries in a well ventilated and dry room only.
- 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.

DANGER!



Risk of poisoning and injury from battery acid

- Wear safety goggles and protective gloves.
- Do not allow battery acid to come into contact with skin.
- If battery acid is sprayed in your face or eyes, wash it off immediately with cold water and seek medical attention.
- If you have swallowed battery acid, drink a lot of water and seek medical attention.
- Store batteries out of the reach of children.
- Never tilt the battery, as battery acid may run out.

Attention!

- Disconnect and connect the battery in the correct sequence.
- Only operate the battery with the battery terminal cover fitted (depending on the model, as a cover flap on the positive terminal or a complete protective battery cover).



Note

The battery is situated under the passenger seat.

The battery is filled with battery acid and sealed at the factory.

Installation **B** k

- ➔ First connect the red cable(s) (+ / positive terminal) **1**.
- ➔ Then connect the black cable(s) (- / negative terminal) **2**.
- ➔ Fit the battery terminal cover **3**.



Note

Where devices have additional electrical accessories, such as power steering, 12 V socket, cutter deck height adjuster, etc., the connection cables must be grouped together (e.g. using cable ties) in cable groups (all red or all black cables). If cable group exist, always position the thickest cable in the group next to the battery terminal.

Removal

- ➔ Remove the battery terminal cover.
- ➔ First disconnect the black cable(s) (- / negative terminal).
- ➔ Then disconnect the red cable(s) (+ / positive terminal).

Charging the battery

WARNING!



Electrolyte liquid even discharges from sealed batteries.

- ➔ Risk of injury and fire
- ➔ Avoid tilting the battery.

- ➔ Before using for the first time, charge the battery with a 12 Volt battery charger.
 - Lead-acid battery: Maximum charging current 4 amps for 1-2 hours
 - AGM battery: Maximum charging current 1.1 amps for 12-14 hours
- ➔ After charging the battery, first pull out the battery charger plug.
- ➔ Then disconnect the battery (see also operating instructions for the battery charger).

Attention!

- ➔ Follow the instructions in the operating manual for your battery charger.

Operating elements

Overview **A**

- A** Reverse pedal
 - B** Forward pedal
 - C** Lever for steering column adjustment
 - D** Gear release lever
 - E** Parking brake lever (parking brake)
 - F** Choke *
 - G** Ignition lock
 - H** PTO switch
 - I** Display cluster *
 - J** Throttle/choke *
 - K** Can holder/storage compartment
 - L** Driver's seat
 - M** Fuel tank
 - N** Height adjustment star knob for raising the cutter deck
 - O** Pedal for raising the cutter deck
 - P** Headlights *
 - Q** Deflector flap
- (* model-dependent)

Start-up

Before operating the unit, always

Check:

- All safety equipment/protective devices
- The engine oil level (see the engine handbook)
- The fuel level
- Tyre pressure
- The side coverings, accessory equipment, the area around the air filter for dirt and grass

Fill up with fuel and check the oil level



Note

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

- Use unleaded petrol.
- Fill fuel tank up to max. 2 cm below the lower edge of the inlet nozzle.
- Seal the fuel tank tightly.
- Check the oil level. The oil level must be between the "Full/Max." and "Add/Min." mark (see also engine manual).

Check tyre pressure



Note

For reasons of manufacture, tyre pressure may be higher than required.

- Check the tyre pressure of each wheel and correct it if necessary (see the tyre wall for the maximum tyre pressure). For further information see the "Servicing" section.

Recommended tyre pressure:

Front	1.0 bar
Rear	0.65 bar

Adjusting the driver's seat **J K** (depending on version and model)

Seat with adjustment lever **L**

- Sit on the driver's seat.
- Press the adjustment lever to the left and keep it held **1**.
- Bring the seat to the desired position **2** and leave the adjusting lever **3**.



Note

When releasing the adjustment lever, make sure the seat latches in correctly.

Seat without adjustment lever **K**

- Fold the seat forward **1**.
- Remove the tommy screws **1** **2** and move the seat to the desired position **3**.
- Refit the tommy screws and tighten **4**.
- Fold the seat back **5**.

Adjusting the steering column **B g**

- Pull the steering column adjustment lever **A** upwards and move the steering column **B** into the desired position **1 2**.
- Release the steering column adjustment lever **A** to lock the steering column in this position **3**.



Note

Ensure the steering column is correctly locked/engaged.

The steering column must be adjusted so that it does not touch your legs when you are sitting in the driver's seat.

Adjusting the wheels of the cutter deck **I**

The cutter deck wheels should never be lower than 6-12 mm above the ground at the lowest cutter position. The cutter deck wheels are not designed to bear the loads generated by the cutters and may have to be offset accordingly. They are used solely for compensating for floor unevenness.

- Always move the cutter deck wheels so they line up evenly.



Note

The number of cutter deck wheels varies depending on the model.

Operation

Attention!

- Also observe the information in the operating instructions for the engine.



Note

Comply with the national/municipal regulations concerning the times when the appliance may be used (if required, contact your local authority).

Switching the headlights on/off **A [P]** (optional - depending on the model)

Switching on

- The headlight comes on up if the engine is running or if the ignition key is in the position / **F** / **R** **F** **X** **F** **F**.

Switching off

- The headlight is switched off, if the ignition key is in the STOP position / .

Applying/releasing the parking brake **G**

- To switch the parking brake on, press the lever **A** to the right out of the recess and push it fully back until the lever engages in position **(P)** / .

- To switch the parking brake off, press the lever [A] to the right out of the recess and push it fully forward until the lever engages in position (P) / G.



Note

Before switching the parking brake on, always bring the device to a stop before doing so, and do not press the accelerator pedal any more.

Do not press the accelerator pedal again once the parking brake is switched on because this could result in damage to the gearbox.

Attention!

- Always switch on the parking brake before leaving the device.

Setting the engine speed D

You can set the engine speed with infinite variability using the throttle.

Fast engine speed =

Slow engine speed =

Starting the engine C D E



Note

The choke E is used to start the device when the engine is cold. Some models have no choke. The engine is automatically set to the particular starting process. Follow the separate information in the engine operating instructions.

- Open the fuel tap (if present, see engine manual).
- Sit down on the driver's seat.
- Switch the parking brake on.
- Switch the cutter deck off.
- Insert the ignition key into the ignition lock.
- Turn the ignition key to ON for about one minute to fill the engine fuel system with fuel. Then turn the ignition key back to OFF.
This action step is only necessary for devices with an electronic throttle - see also the engine operating instructions.
- Set the throttle to the middle position between and .



Note

On some models this position is also marked with "START".

- If the engine is cold, pull out the choke or set the throttle to (only required for devices fitted with a choke system).
- Turn the ignition key [3]:
 - Turn the ignition key to until the engine starts running.
 - Release the ignition key.
 - ✓ The ignition key remains in the normal position / F.



Note

A start attempt should take a maximum of 5 seconds. Wait 10 seconds before trying again.



Note

The OCR function must not be activated during the start process (see section "OCR function").

- Reset the choke / throttle slowly until the engine is running smoothly.



Note

On devices with an electronic throttle and fully electronic fuel injection system, a metallic ticking may be heard when starting the engine. Let the engine run in the starting position for five to ten minutes.

If the noise can still be heard, switch off the engine and contact a specialist workshop.

Stopping the engine C D

- Set the throttle to .
- Let the engine run for about 60 seconds.
- Set the ignition key to .
- Remove the ignition key.
- Switch the parking brake on.

Driving M

⚠ WARNING!



Risk posed by abrupt starting, sudden stopping and driving at an excessively high speed.

➤ Risk of accidents

- Drive slowly and brake slowly.
- Do not drive at excessive speed.
- Be particularly careful when reversing.
- Never change the direction of travel without first bringing the unit to a standstill.
- When entering corners, always reduce your speed and adjust the speed to the turning radius (the tighter the corner, the lower the speed).
- Never adjust the steering column or the driver's seat when in motion.
- Never operate the device without the cutter deck.



Additional safety information on the drive

If the device is moving slightly (crawling), even though you are not pressing the accelerator pedals (= neutral position), switch the device off, discontinue use and take it to a service centre.



Note

Do not step on the forward or reverse pedal while you are activating the brake pedal or the parking brake is switched on. This may damage the gearbox.

A	Forward pedal
B	Reverse pedal

- Sit down on the driver's seat.
- Start the engine.
- Release the parking brake.
- To move off, step on the accelerator pedal **[A]** / **[B]**.

Note
The further you step on the accelerator pedal, the quicker the machine will go.

Note
The device is designed for operation in the full throttle position. If you want to practice or drive at a lower speed, the throttle can also be set to the position between  and .

Stopping the device **[M]**

To stop the device, take your foot off the accelerator pedal **[A]** / **[B]**, until the device comes to a standstill.

Switching the cutter deck on/off (depending on the model) **[F]**

The PTO switch actuates an mechanical clutch to switch ON and OFF the cutters.

- To switch the cutter deck on, pull the PTO switch .
- To switch the cutter deck off, press the PTO switch .

Setting the cutting height **[A]**

The cutter deck has a height adjustment mechanism with multiple settings.

The cutting height range for mowing is between about 2.5 cm for the lowest cutting height (index 1 on the height-adjustment start knob **[N]**) and 11.4 cm for the highest cutting height (notch index 4.5).

Note
Each index setting (maximum 15 setting options - dependent on the model) shifts the cutter deck by about 6.4 mm.

Note
The highest cutting height (index 4.5) should be used for transport (driving without mowing).

- Step fully down on the pedal for the cutter deck height adjustment **[O]** to move the cutter deck to the fully raised position.
- Rotate the height adjustment star knob **[N]** to the desired cutting height (index 1 to 4.5).
- Slowly remove your foot from the cutter deck lifting pedal.
- ✓ The cutter deck drops slowly to the selected height and is locked down in this position.

Mowing

⚠ CAUTION!



Items flung out (cut grass, stones, etc.)

→ Risk of injury

- Only empty the grass catcher when the cutters are switched off.
- Only operate the device with the deflector flap or grass catcher attached.

Attention!

- Switch the engine off immediately if the cutter deck strikes a foreign body (e.g. a stone), or if the device starts to vibrate in an unusual way.
- Inspect the device for damage before continuing operation. In the event of damage, discontinue use of the device and have it repaired by a service centre prior to putting back into operation.
- Do not activate the cutter deck in high grass.



Note

Some models can be driven in reverse with the cutter deck running (OCR function = reverse mowing mode). Prior to driving in reverse, switch the cutter deck off while it is in normal operation   **[F]** and position it in a raised position (see chapter "Starting the engine").

Exercise particular caution when mowing in reverse (OCR function). Never use the reverse mowing function if it is not absolutely necessary.

Never change the direction while the vehicle moves (with the drive on or off).

Exercise particular caution when reversing with the cutters switched on. Only reverse with the cutter deck switched on if absolutely necessary.

For optimum lawn mowing, cut the first two rounds so the cut grass is thrown out sideways into the middle.

Do not allow the grass to grow too long, and never cut it too short.

Drive in straight lines and do not mow at high speed, particularly when a mulching kit or grass catcher is installed.

- Sit down on the driver's seat.
- Bring the cutter deck to the top height position.
- Start the engine as indicated.
- Set the throttle to .
- Switch the cutter deck on and then lower it.
- Release the parking brake.
- To drive off, step on the forward pedal.



Information on mowing

Do not mow wet grass. Drive slowly at maximum engine speed. When adjusting the cutting height and travel speed, ensure that the device is not overloaded. Depending on the length, type, and dampness of the grass, adjust the cutting height and driving speed in order to be able to collect grass with a grass catcher without any trouble.

In the event of blockages, reduce speed and raise the cutting height.



Note on the PTO switch

In the case of automatic shutdown through the safety locking system (e.g. reversing with the cutting mechanism activated), first switch the switch off, and then back on again, to release the clutch lock.

OCR (reverse mowing mode) function (model-dependent)

The ignition lock is fitted with an OCR function, which offers you user-controlled mowing, even when reversing.

- Start the engine.
- Turn the ignition key [3] anti-clockwise from normal position to reverse-mowing position and press switch [1].
- ✓ Indicator lamp [2] comes on. You can now mow both when moving forwards and when reversing.
- To end the OCR function, turn the ignition switch to the right to the normal position F.
- ✓ Indicator lamp [2] goes out.



Notes

The OCR function is switched off automatically once the key is turned to the normal position or the engine is switched off (stop position or switching off of the engine via the safety locking system).

Tips on lawn care

Mowing

A lawn is made up of various different types of grass. If you mow more frequently, the grown of strongly-rooting grasses is favoured resulting in firm turf. If you seldom cut the grass, you will enhance the development of high-growing types of grass and other weeds (e.g. clover, daisies ...). The normal height of a lawn is approx. 4–5 cm. Only 1/3 of the total height should be mown; therefore cut 7–8 cm long grass to normal height. Preferably do not cut the lawn shorter than 4 cm, otherwise the turf will be damaged in a dry period. If the grass has grown particularly high (e.g. during a holiday period), cut it back to its normal height in stages.

Mulching using the accessories (optional)

With mulching, the grass is cut into small pieces (approx. 1 cm) during mowing and is left on the ground. A lot of the nutrients in the cut grass are retained for the benefit of the lawn.

→ Ask your specialist dealer for appropriate mulching accessories.



Note

This device is designed to mow lawns. Do not mow scrub, weeds, or overlong grass.

Pay attention to the following notes:

- Do not mow wet grass.
- Never cut more than 2 cm of the total grass length.
- Drive slowly and at maximum engine speed.
- Clean the cutter deck regularly.

Switching the device off

- Stop the device.
- Switch the cutter deck off.
- Set the throttle to .
- Bring the cutter deck to the top position.
- Switch the engine off after 60 seconds.
- Switch the parking brake on.
- Close the fuel tap (if present, see engine manual).
- Remove the ignition key.

Pushing the device



- Switch the engine off.
- Switch the parking brake off.
- Pull the gear release lever [A] back and then to the right until it sits in the recess .
- ✓ You can now push the device.



Note

Never tow the device. This can cause serious damage to the gears.

- To continue driving, pull the gear release lever [A] to the rear left out of the recess and then press it fully forward.



Display cluster **H** (depending on the model, optional)

Note
The indicators only come on when the engine is running or if the ignition key is turned from the STOP position.

Note
If the ignition switch is outside the STOP position, the egg timer symbol of the display cluster comes on/flashes to indicate that the tractor operating hours are being recorded, irrespective of whether the engine has been started or not.

Note
If the oil change and air filter maintenance occur at the same time, the oil change indicator appears first and then the air filter indicator.

Dependent on the model, the following indications appear on the LCD display of the display cluster:

Operating hours/battery voltage indication

When the ignition is switched on, the battery voltage indicator is displayed for a short period, which then changes to the operating hours indicator. The operating hours are displayed in 1/10 hours. The operating hours are always counted except for when the ignition key is in the "Stop" position or when it is removed.

Maintenance indicators

Note
TIME means: The total operating hours are displayed.

CHG-OIL-SOON-TIME Changing the oil

→ Change the engine oil immediately (see engine operating instructions).

This indicator appears every 50 operating hours for a period of 7 minutes.

LO-OIL-TIME Oil level

The engine oil level is too low. This indication is only displayed for devices whose engine has an oil pressure switch.

→ Switch the engine off immediately and check the engine oil level (see the engine operating instructions). Top up the oil if required.

LO-BATT-TIME Battery voltage

If you turn the ignition key to the  position, the battery voltage is briefly shown and then the total operating hours.

- Charge the battery as quickly as possible.
- It may be necessary to have the charging system checked by a service centre for possible damage.

CLM-AIR-FILT-TIME Air filter maintenance

→ Perform air filter maintenance immediately (see engine operating instructions).

This indicator appears every 25 operating hours for a period of 7 minutes.

Servicing

⚠ WARNING!



Risk of injuries or material damage

- Only perform maintenance and cleaning work on the device with the engine at a standstill.
- Remove the ignition key and the spark-plug connectors.
- Wait until all moving parts have come to a complete stop and the engine has cooled down.
- Never reach into the rotating cutter blades.
- Only have repair and maintenance work and the replacement of safety components performed by a qualified specialist or a specialist service centre.
- Only have the cutter blades replaced or re-sharpened by a specialist service centre.
- Clean the device and all add-on and accessory parts after every instance of use. Collections of very dry dirt and mowing residues can present a risk of fire.

Cleaning the device

Attention!

- Do **not** use high-pressure cleaners for cleaning the device.
- Park the device on firm and level ground.
- Switch the parking brake on.
- Clean the device with a scrubbing brush, hand brush or a cloth.



Note

Also always clean below the device, e.g. in the area around the rear axle/gearbox and gearbox fan.

Cleaning the cutter deck

DANGER!



Sharp, moving cutting tools

➔ Risk of injury

➤ Wear protective gloves.

➤ Caution when cleaning the cutters.

➤ Note that the movement of one cutting tool may lead to the rotation of other cutting tools.

Attention!

Fuel may run into the combustion chamber.

➔ Damage to engine

➤ The device must not be tilted to an angle greater than 30°.

- ➔ Clean the cutting chamber with a scrubbing brush, hand brush or a cloth.
- ➔ Clean the cutter deck top side, and also below the V-belt cover/blade spindle cover with a brush, hand brush or a cloth.

Cutter deck with cleaning nozzle (optional)

Cleaning

- ➔ Park the device on a clean and firm foundation.
- ➔ Switch the parking brake on.
- ➔ Use a commercially available quick-release coupling to attach a water hose.
- ➔ Start the engine.
- ➔ Lower the cutter deck and switch it on.
- ➔ Allow the engine and cutter deck to run for a few minutes.
- ➔ Switch the engine and cutter deck off.



Note

If available, repeat the steps for the second cleaning nozzle.

Drying

- ➔ Bring the cutter deck to the top position.
- ➔ Start the engine and switch the cutter deck on.
- ➔ To dry the cutter deck, allow the engine and cutter deck to run for a few minutes.
- ➔ Switch the engine and cutter deck off.

Servicing the device

- ➔ Observe the servicing instructions in the engine manual.
- ➔ At the end of the season, have the mower inspected and serviced by a service centre.



Note

After changing the oil, take the waste oil to a waste oil collecting point or to a waste disposal company.



Note

Hand over used batteries to your dealer or to a waste management company. Remove the battery before scrapping the mower.

Using jump leads

DANGER!



Risk of explosion / short-circuit

➤ Never bypass 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.

- ➔ Attach the red jump lead to the positive terminal (+) of the discharged battery and to the positive terminal (+) of 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 device 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.

- ➔ Switch the parking brake on.
- ➔ Start the device.
- ➔ Disconnect the jump leads in reverse sequence.

Use of the optional multifunction tool (model-dependent)

The multifunction tool is located on the front side of the right console. It has a 1/2 inch spanner and can thus be used for loosening and tightening of various (1/2 inch) screws and nuts.

Tyre pressure

WARNING!



Increased tyre pressure

➔ Risk of accident and damage to the device.

➤ Never exceed the permitted tyre pressure (see tyre wall).

- ➔ Check the tyre pressure and correct it where necessary.

Recommended tyre pressure:

Front	1.0 bar
Rear	0.65 bar



Note

Excessive tyre pressure reduces the service life of the tyres. Check the tyre pressure prior to every use.

Every 5 operating hours

- Perform the first engine oil change (for intervals refer to the engine manual).
- Use the quick oil drain (optional) to drain the oil .



Note

When draining the oil, use a suitable collection container.

- The engine mounting bolts must be checked for tight seating by a service centre (tightening torque 37-50Nm).
- The blade mounting screws must be checked for tight seating by a service centre (tightening torque 95-122Nm).
- Check the fuel system (tank, lines, etc.) for leaks.

Every 10 operating hours

- Clean the battery poles and terminals.
- Lubricate the device at the appropriate grease nipples/lubricating points (e.g. wheel bearings, cutter deck wheels, tensioning pulleys, blade shafts, etc.) with type 251H EP grease.



Note

Lubrication must only be performed by a service centre.

- Check the cutting blades for wear and arrange for their sharpening or replacement by a service centre.

Every 25 operating hours

- Lubricate the steering linkage on the two grease nipples (in the front area of the device underside) with multipurpose grease no. 2.



Note

Lubrication must only be performed by a service centre.

- Have the dirt and grass residue beneath the V-belt cover of the cutter deck removed by a service centre.

Every 50 operating hours

- The engine mounting bolts must be checked for tight seating by a service centre (tightening torque 37-50 Nm).
- The blade mounting screws must be checked for tight seating by a service centre (tightening torque 95-122 Nm).
- Check the fuel system (tank, lines, etc.) for leaks.
- Have drive V-belts, blade shafts and tensioning pulleys checked for wear and damage by a service centre.

- Dirt and grass remnants must be removed from the drive gear by a service centre.
- Contact a service centre to arrange for replacement of the fuel filter.
- Check the tank system for leaks and damage. Any damaged parts must be immediately replaced.

Every 100 operating hours

- Take the device to a service centre for checking of its safety and operation.
- All bolted connections on the device must be checked for tightness by a service centre.

Every 200 operating hours

- Arrange for the hydraulic system of the drive gear to be checked and serviced by a service centre.

If required

Charge the battery:

- If you are not using the battery for lengthy periods, remove the battery from the device.
- Charge up the battery every 6–8 weeks, as well as before putting back into operation after storage.
- Check the battery voltage with a voltmeter. If the voltage is less than 12.4 V DC, recharge the battery with a 12-volt battery charger.
 - Lead-acid batteries:
Maximum charging current 4 amps
 - AGM batteries:
Maximum charging current 1.1 amps



Note

If possible use a fully automatic battery charger and follow the instructions in the operating manual of your battery charger.

Replace fuses:

- Replace defective fuses only with ones of an equal rating.

Once a season

- Lubricate all rotating and bearing points (operating lever, height adjustment of the cutter deck, etc.) with several drops of light oil.
- Clean the spark plugs and set the electrode gap or replace the spark plug (see engine manual).
- The rear axles must be lubricated with a special-purpose, water-repellent grease by a service centre.
- Have the cutter deck repaired only by a service centre.
- Arrange for the device to be checked for correct operation and safety by a service centre.



Note

Ensure regular checking (during service centre visits) of the condition of the cutter deck V-belt.

Removing/installing and adjusting the cutter deck

WARNING!



Risk of injuries or material damage

- Only perform maintenance and cleaning work on the device with the engine at a standstill.
- Remove the ignition key and the spark-plug connectors.
- Wait until all moving parts have come to a complete stop and the engine has cooled down.
- Never reach into the rotating cutter blades.
- Wear protective gloves.
- Only have repair and maintenance work and the replacement of safety components performed by a qualified specialist or a specialist service centre.
- Note that the movement of one cutting tool may lead to the rotation of other cutting tools.

WARNING!



The suspension/lifter is spring-supported and can spring back upwards once the cutter deck is separated from the lifter. Removal and installation must only be performed by a service centre.

Adjusting the cutter deck a

- ➔ Park the device on an even surface and switch the parking brake on.



Note

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

When mowing does not appear to be parallel to the lawn, the cutter deck can be aligned.

Adjusting the lateral cutter deck level a

- ➔ Move the cutter deck to the mid-height position.
- ➔ Carefully turn the outer cutting blades transverse to the direction of travel.
- ➔ Measure the distance between the ground and the ends of the two outer blades.

The distance should always be equal. If necessary, you can set the correct level as follows. Perform the adjustment on the left or right adjustment segment **[1]** of the cutter deck:

- ➔ Release the locknuts **[2]**.
- ➔ To adjust the level, screw the adjusting screw **[3]** out or in until the level is correct.
- ➔ Re-tighten the locknuts (77 Nm tightening torque).



Note

Adjusting the side level can affect the level from the front to the rear. Therefore, check the value of the front to rear level and correct it as necessary.

Set the cutter deck level from front to back b



Note

First check the side cutter deck level.

- ➔ Park the device on an even surface and switch the parking brake on.
- ➔ Move the cutter deck to the mid-height position.
- ➔ Carefully turn the outer cutting blades parallel to the direction of travel.
- ➔ Measure the distance between the ground and the end of the right blade.

The blade end at the front should be about 2-6 mm lower than the rear blade end. You may have to adjust the front fixing bracket **[1]** as follows:

- ➔ Remove the protective cover **[1]** at the pitch arm.
- ➔ Release the locknuts **[2]** in an anti-clockwise direction.
- ➔ To set the level, screw the nuts **[3]** in or out.
- ➔ Re-tighten the locknuts (77 Nm tightening torque).
- ➔ Fasten the protective cover back onto the pitch arm.

Pedal adjustment of the cutter deck raising mechanism b

The pedal for raising the cutter deck can be adjusted to the respective requirements of the operator (body height).

- ➔ Bring the cutter deck into transport position. Remove the screw **[1]** with washer **[2]** and nut **[3]** on the pedal.
- ➔ Position the pedal into the desired position and fasten it again using the previously removed screw, washer and nut (torque 38-47 Nm).

Storage

Attention!

Damage to appliance materials

- Store the device in a clean, dry enclosed space.
- Protect the device from rust when storing it for lengthy periods of time.
- Protect the device from frost.

- ➔ Clean the device and the grass catcher.
- ➔ Wipe all metal parts down with an oily cloth or spray them with oil to protect them from rust.
- ➔ Charge the battery.
- ➔ Remove the battery in the event of long-term storage (e.g. over winter).
- ➔ Charge up the battery every 6–8 weeks in the event of long-term storage and before reinstalling.
- ➔ Drain the fuel and shut down the engine – see the engine manual.
- ➔ Check the tyre pressure.

Transport



Note

The device is not approved for public thoroughfares in accordance with national road legislation (StVO).

Short distances

- ➔ Switch off the cutter deck before driving the mower.
- ➔ Prior to driving, move the cutter deck to the highest position (index 4.5).
- ➔ Drive the machine only short distances to change its location of use.

Long distances

WARNING!



Danger posed by unstable and unsecured ramps

- ➔ Risk of serious injury to people and severe damage to property
- If you are pushing the device onto a trailer or into a lorry, first make sure that the ramp is stable and secure.

WARNING!



Danger posed by inadequate fastening

- ➔ Turbulence during transport
- If you are transporting the device in a trailer or lorry, fasten it and secure it adequately.

Attention!

Environmental hazard due to leaked fuel

- Do not transport the device in a tilted state.

- ➔ Transport the device on a transport vehicle over long distances.
- ➔ Manually push the device in neutral into/onto the transport vehicle.
- ➔ Activate the parking brake and secure the device against slipping.

Troubleshooting
⚠ WARNING!


Risk of injuries or material damage

- In case of doubt always take your mower to a specialist workshop.
- Switch the device off prior to all checks and all work on the cutting blades.
- Protect yourself against injury by doing the following prior to all performing work on the device:
 - Switch off the engine
 - Remove the ignition key
 - Engage the parking brake
 - Wait until all rotating parts have come to a standstill
 - Wait until the engine has cooled down
 - Pull the spark plug connector off the engine so that the engine cannot inadvertently start.

Problem	Possible cause	Remedy
Starter does not turn.	Safety locking system has actuated.	Sit on the driver's seat and engage the parking brake. Switch the PTO off.
	Battery not connected correctly.	Connect red cable to the (+) battery terminal and the black cable to the (-) battery terminal.
Starter does not turn.	Discharged or low battery.	Check and charge the battery. If necessary, replace the battery.
	Fuse has tripped.	Replace the fuse. If the fuse trips repeatedly, check for the cause.
	Loose earth cable between engine and frame.	Connect the earth cable.
Starter turns but engine does not start.	Choke and throttle in wrong position.	Actuate the choke. Set the throttle to  .
	Carburettor not receiving any fuel, fuel tank empty.	Top up fuel.
	Defective or dirty spark plug.	Check the spark plug (see engine manual).
	No ignition spark.	Arrange for the ignition to be checked in a service centre.
Engine producing smoke.	Too much engine oil in the engine.	Switch the device off immediately. Check the engine oil level.
	Engine defective.	Switch the device off immediately. Have the engine checked in a service centre.
Strong vibrations.	Damaged blade shaft or defective cutter.	Switch the device off immediately. Have defective parts replaced in a service centre.
Cutter deck does not discharge grass or cuts unevenly.	Engine speed too low.	Put your foot down further on the accelerator.
	Travelling speed too high.	Choose a lower driving speed.
	Cutting blade is blunt.	Have the cutting blades sharpened or replaced by a service centre.
Engine is running, cutter deck is not mowing.	V-belt torn.	Have the V-belt replaced in a service centre.

Information on the engine

The engine manufacturer is liable for all engine-related problems with respect to power, power measurement, technical specifications, warranty and service.

Information can be found in the owner's/user handbook supplied separately by the engine manufacturer.

Warranty

The warranty conditions of our local company or importer apply in all countries. Under the terms of the warranty we will repair faults on your device free of charge, insofar as material or manufacturing defects are the cause. To make a claim under warranty please contact your seller or your nearest branch.

CE Declaration of Conformity



You can find more information about the device on the separately enclosed CE Declaration of Conformity, which forms part of these operating instructions.

Environmentally-friendly disposal



Dispose of packaging remnants, old devices, etc. in accordance with local regulations.

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