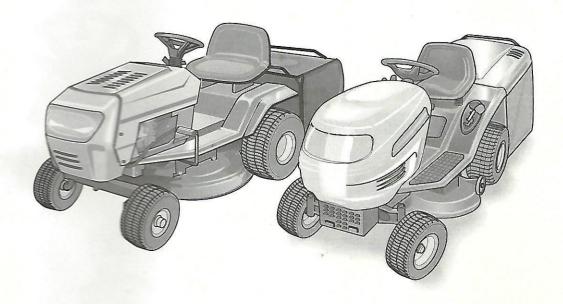
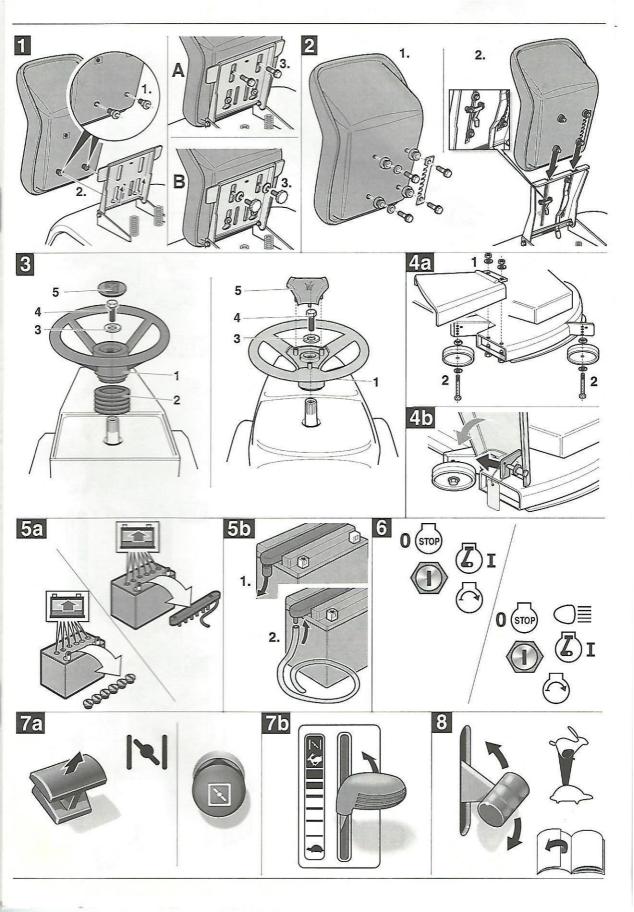
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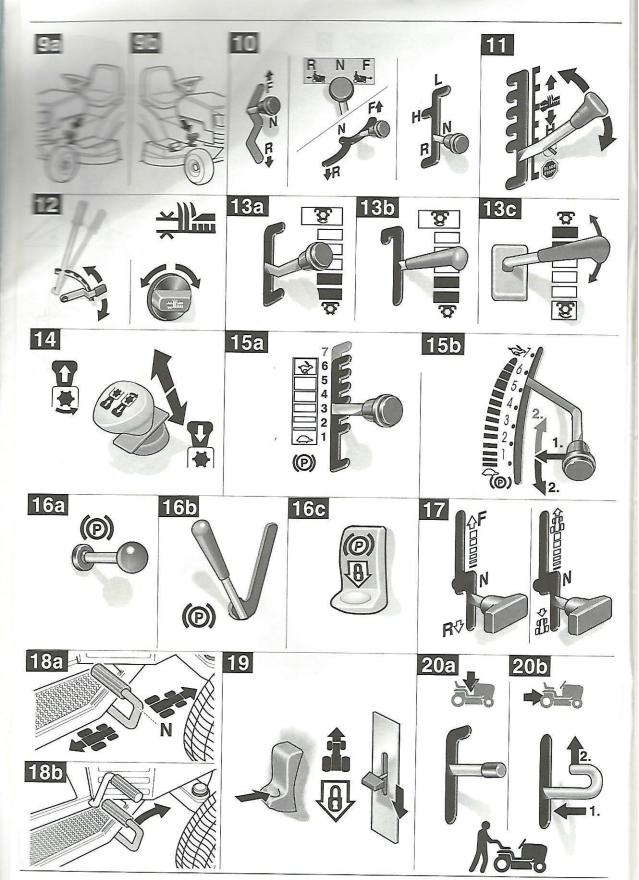


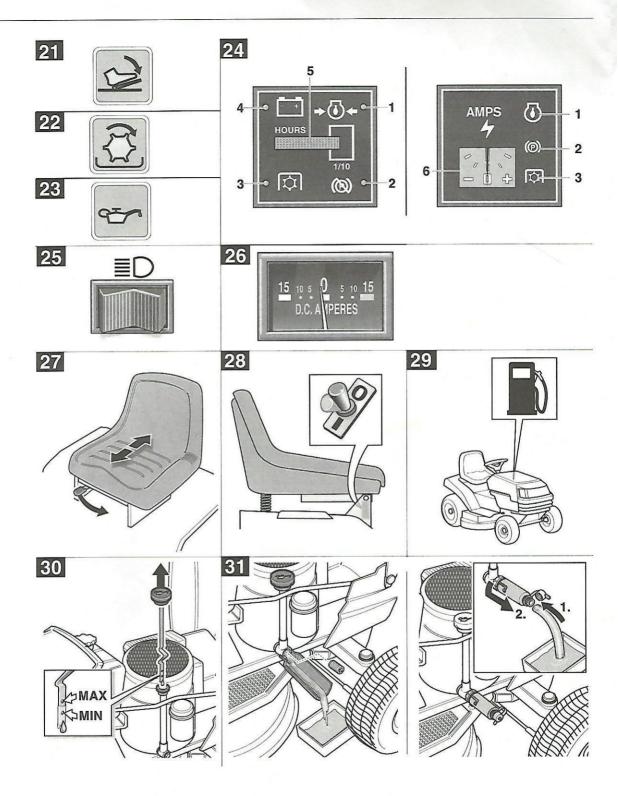




L 03 FORM NO. 770-8514E







Assembling the appliance

Various models are described in these operating instructions.

The illustrations may differ in detail from the machine which you have purchased.



Installing the seat

Fixed seat:

Figure 1

Adjustable seat:

Figure 2

Installing the steering wheel

Figure 3

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

Installing the deflector

(Appliances with side ejector)

Figure 4 a

- Remove all screws, washers, and nuts on the deflector.
- Insert the deflector (1), and secure it with the screws, washers, and nuts.
- Secure the cutter rollers (2) with the available screws, washers, and nuts.

Figure 4 b

The deflector and cutter rollers are now installed.

 Press the deflector back slightly, and remove the securing plate.
 The deflector closes automatically.

Installing the grass catcher

See the separate operating instructions for the grass catcher.

Preparing the battery

⚠ Danger 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, as acid could run out.

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

A Caution

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

Immediately clean parts of the mower which have been sprayed with battery acid. Battery acid is corrosive.

Do not smoke, and keep burning and hot objects at a distance. Charge batteries only in wellventilated and dry rooms.

Possible short-circuit when working on the battery

Do not place any tools or metal objects on the battery.

Note the order of terminals when connecting and disconnecting the battery.

- First disconnect the black cable (-), then the red cable (+).
- Remove the battery from the appliance.

Figure 5

- Remove the sealing strip or plug from 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 and, if necessary, top up the acid level.
- Before using a battery for the first time, first charge it for two to six hours with a battery charger delivering max 12 V and 6 A. After charging, first disconnect the mains plug to the battery charger, then disconnect the battery (see also the operating instructions for the battery charger).
- Replace the sealing strip or plug on 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! (Figure 5 b)
- First connect the red cable (+), then the black cable (-).
- Only distilled water should be used to refill the battery afterwards.

Controls and displays

Ignition lock

Figure 6

Start: Turn the key to the right ountil the engine is running, then release. Key is in the **(**)/I position. Stopping: Turn the key to left to // 0.

Choke

Figure 7

To start a cold engine, pull the choke (Figure 7a), or move the accelerator lever to 1 (Figure 7b).

Throttle

Figure 8

The engine speed can be adjusted continuously.

Fast engine speed = \diamondsuit . Slow engine speed = \diamondsuit .

Cluch / brake pedal

(For models with Transmatic drive only)

Figure 9 a

Clutch = press down the pedal halfway.

Brake = press down the pedal fully.

Brake pedal

Figure 9 b

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

Direction-of-travel lever

Figure 10

The direction lever must be used only when the tractor is stationary.

Press down fully either the brake pedal or the clutch / brake pedal, and keep this pressed.

Forwards = lever to "F/1"

Idle = lever to "N"

Reverse = lever to "R/#"

800 Series – These appliances have two forward speeds.

For normal use

= lever to "H".

For work with greater traction = lever to "I".

Lever for setting the cutting height

Figure 111

Cutters switched OFF

= lever at "Blade Stop" (not on all models).

Largest cutting height, cutters top = lever to "H".

Smallest cutting height, cutters bottom = lever to "L".

Stop for set cutting heights (optional)

Figure 12

The stop serves as a "reminder" for a previously set cutting height.

PTO-lever (optional)

Figure 13

The PTO lever actuates a mechanism to switch ON and OFF the cutters.

Figure 13a and 13b

Switch off the cutter deck 🌣

= move the lever down.

Switch on the cutter deck **2** = move the lever up.

Figure 13c

Switch off the cutter deck ****** = pull on the lever, press it down, and slowly push it back in.

Switch on the cutter deck **2** = pull back and up on the lever until it engages.

PTO-switch (optional)

Figure 14

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

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.

Speed indicator (optional)

The speed is shown in the display window on the instrument panel.

Lever for setting the speed

(For models with Transmatic drive only)

Figure 15

Low speed

= lever to "1".

High speed

= lever to "6" or "7" (optional).

Increase speed

= adjust speed without engaging the clutch / brake pedal.

Reduce speed

 adjust speed after engaging the clutch / brake pedal (pressed down halfway).

Actuate the parking brake: Press down the clutch / brake pedal fully, and move the lever for setting the speed to (19).

Release the parking brake: Press down the clutch / brake pedal fully, and move the lever to a speed.

Locking brake for appliances with auto and hydrostatic drive

Figure 16

a: Appliances with button,
Actuate the parking brake:
Press down fully the clutch / brake
pedal, and pull the brake knob.
Release the parking brake:
Press down fully the clutch /
brake pedal, the brake knob
disengages.

b: Appliances with lever,
Actuate the parking brake:
Push back the lever until it
engages in the lock (position (9)).
Release the parking brake:
Pull the lever back and to the side
until it leaves the lock, and then
move it forwards to the original
position.

c: Appliances with switch,
Actuate the parking brake:
Press down the brake pedal fully,
and press the switch.
Release the parking brake:
Press down the brake pedal fully,
the switch disengages.

Drive lever for appliances with hydrostatic drive

(not all models)

Figure 17

The drive pedal is used to adjust the speed continuously and to change direction:

Forwards = lever to "F" or $\frac{2}{3}$. Stop = lever to "N". Reverse = lever to "R" or $\frac{7}{3}$.

Drive pedal for appliances with hydrostatic drive

(depending on model)

Figure 18a

The drive pedal is used to adjust the speed continuously and to change direction:

Forwards = push forwards the drive pedal (in direction $\hat{}$), the further forward, the faster.

Stop (for stationary vehicle and changing direction) = release the drive pedal (N).

Reverse = push back the drive pedal (counter to direction $\frac{1}{4}$), the further back, the faster.

Drive pedal for appliances with auto drive

Figure 18b

The drive pedal is used to adjust the speed continuously:

Move the direction lever to F = forwards (1) or R = reverse (1), and push the drive pedal forwards; the further forward, the faster.

Reverse = push back the drive pedal (counter to direction), the further back, the faster.

Speed control (optional)

Figure 19

Press the switch.

The forward speed selected at this point (but not top speed) is maintained, and the drive pedal can be released. Engaging the drive pedal, the brake pedal, or the clutch / brake pedal automatically switches OFF speed control on models with Transmatic drive.

Releasing the gear lock for hydrostatic drives

Figure 20

a: To push the appliance with the engine switched OFF, push the lever forwards until it engages. To drive the appliance, return the lever.

b: To push the appliance with the engine switched OFF, press the lever and push it up.

To drive the appliance, push the lever down. It disengages automatically.

Indicator lamps (optional) Clutch

Figure 21

This lamp lights up when the clutch / brake pedal is not pressed or the locking brake not engaged at engine start.

Cutters

Figure 22

This lamp lights up when the cutters are not switched OFF at engine start.

Oil pressure

Figure 23

This lamp lights up when the ignition is switched ON and goes out when the engine is running.

When this indicator lamp lights up and the engine is running, immediately switch off the engine and check the oil level.

Display cluster (optional)

Figure 24

The display cluster can consist of the following elements, depending on the model.

Oil pressure (1):

When this indicator lamp lights up and the engine is running, immediately switch off the engine and check the oil level. If necessary, consult a garage.

Clutch (2):

The indicator lamp lights up when the clutch / brake pedal is not pressed or the locking brake not engaged at engine start.

Cutters (3):

The indicator lamp lights up when the cutters are not switched OFF at engine start.

Battery charge indicator (4): When this indicator lamp lights up and the engine is running, the battery is low. If necessary, consult a garage.

Engine hour indicator (5): This shows the elapsed engine hours when ignition is on.

Ampere meter (6):

This shows the charging current from the generator to the battery. Slow engine speed

= needle at the centre.

Fast engine speed

= needle always on the right (+).

Lighting switch (optional)

Figure 25

Switch ON the headlights

= switch to "ON".

Some models are not fitted with a lighting switch. The headlights are switched ON as long as the engine is running.

Ampere meter (optional)

Figure 26

This shows the charging current from the generator to the battery.

Slow engine speed

= needle at the centre.

Fast engine speed

= needle always on the right (+).

Adjustable seat (optional)

Figure 27

Pull the lever, and adjust the seat.

Level indicator for grass catcher (optional)

Figure 28

The level indicator is always activated on models without an ON / OFF switch for the level indicator. Otherwise the following applies:

Level indicator ON

= switch at "I"

Level indicator OFF

= switch at "0"

a: Model with acoustic signal: An acoustic signal is generated when the grass catcher is full. The grass catcher must be emptied. b: Model with automatic cutter deactivation:

The cutters are switched OFF automatically when the grass catcher is full. The grass catcher must be emptied before the cutters can be reactivated. Press the PTO switch to switch ON the cutters again (Figure 14).

Step 1:

Switch OFF the PTO-switch. Step 2:

Switch ON the PTO-switch.

Operating safety

Also follow the instructions in the engine handbook!

⚠ 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.

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 mower should not be driven on slopes with a maximum incline greater than 20 %. Do not turn the mower round while you are still on the 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 surface on which the appliance is to be used and remove all objects that the appliance can take up and fling out.

If the cutting tool hits a foreign object (e.g. stone) or if the machine starts vibrating violently: stop the engine immediately. Check the appliance for damage, and have any damage repaired at a specialised garage. There must be nothing placed in front of the grass ejector of a rotary lawnmower.

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.

Risk of asphyxiation from carbon monoxide

The engine should only be run in a room with adequate ventilation or out in the open

Explosion or fire hazard

Petrol vapour is explosive and petrol itself is extremely flammable.

Fill up will petrol before you start the engine. Keep the fuel tank closed when the engine is running or still hot.

Fill with fuel only when the engine has been switched off and has cooled down. Keep away from naked flames, avoid creating sparks and do not smoke. Only refuel the mower out in the open.

Do not start the engine if any petrol has been spilt. Push the mower away from the area where the petrol was spilt and wait until the petrol fumes have evaporated.

To prevent a fire hazard, keep the following parts free from grass and leaking oil: engine, exhaust, battery, fuel tank.

⚠ Danger Injury hazard due to defective mower

Operate the appliance only when it is in good technical condition Subject the appliance to a thorough visual check before using it. In particular, 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 any damaged parts before using the appliance.

i Operating times

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

Refuelling and checking the oil level

- Fuel with unleaded premium (regular unleaded) (Figure 23).
- Fill the fuel tank to within 1 cm of the bottom edge of the neck of the filler hole – no higher.
- Replace the fuel cap and ensure that it is secure.
- Check the oil level (Figure 30).

 The oil level must be between the "Full/Max." and the "Add/Min." markings (see also the engine handbook).

Starting the engine

- Sit on the seat.
- Switch off the cutter deck:
 a: Move the lever to set the cutting height to "Blade Stop" (Figure 11) or
 - b: on models with PTO (Figure 13 or Figure 14): switch OFF the PTO and raise the cutters to the top.
- Press down fully the clutch / brake pedal (Figure ③), and either keep it pressed or, on models without clutch / brake pedal, engage the locking brake (Figure 16b).

- Set the drive lever (Figure 10 or 17) to "N". Appliances with drive pedal are at position "N" when the drive pedal is not pressed (Figure 18).
- Move the accelerator lever (Figure 📵 to 🏠 .
- To co d-start the engine, pull the choke or move the accelerator lever to \(\begin{align*} \text{(Figure 7)}. \end{align*}\)
- Turn the ignition key (Figure 6)
 to 3 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 ⟨\$\overline{L}\$⟩/I.
- Slowly push back the choke (Figure 7).
- Return the accelerator lever (Figure 8) until the engine runs smoothly.

Stopping the engine

- Move the accelerator lever (Figure 8) to ♠.
- Let the engine run for a 20 seconds.
- Turn the ignition key (Figure 6) to ♠/0.
- Remove the ignition key.
- Engage the locking brake before leaving the appliance.

Driving

i Note:

Be particularly careful when reversing. Never change direction without first stopping the appliance.

Hydrostatic or auto drive

- Start the engine as specified.
- Move the direction lever to your choice (on auto drive models only).
- 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.

Transmatic drive

- Start the engine as specified.
- Release the parking brake: Press down fully the clutch / brake pedal, and keep it pressed.
- Move the direction lever to your choice.
- Adjust the speed at the lever.
- Slowly release the clutch / brake pedal, the appliance starts to move.

Stopping the appliance

- Release the drive pedal (if fitted).
- Press the brake pedal or clutch / brake pedal until the appliance is stationary.

Mowing

Before reversing the machine, switch off and raise the cutter deck. Do not change direction when the appliance is coasting or driving.

i Note:

Appliances with rear ejector must have the grass catcher or deflector installed before they can be used to mow lawns.

Appliances with Transmatic drive

- Start the engine as specified.
- To ensure adequate power output, move the throttle to ❖.
- Release the parking brake: Press down fully the clutch / brake pedal, and keep it pressed.
- Move the direction lever to "F"/ forwards.
- Adjust the speed at the lever.
- Switch on the cutter deck:
 - switch ON the PTO (when fitted), and then lower the cutters, or
 - slowly move down the lever to set the cutting height (on models without PTO).
- Slowly release the clutch / brake pedal, the appliance starts to move.

Appliances with hydrostatic drive

- Start the engine as specified.
- To ensure adequate power output, move the throttle to ⋄.
- Switch on the cutter deck:
 - switch ON the PTO (when fitted), and then lower the cutters, or
 - slowly move down the lever to set the cutting height (on models without PTO).
- Release the parking brake: a: Press down fully the brake pedal, and release it or b: on appliances without brake pedal: unlock the lever.
- Use the drive lever or the drive pedal to choose the forwards direction, and engage it slowly to choose the speed. The appliance starts moving.

Appliances with auto drive

- Start the engine as specified.
- To ensure adequate power output, move the throttle to ❖.
- Switch on the cutter deck:
 - switch ON the PTO (when fitted), and then lower the cutters, or
 - slowly move down the lever to set the cutting height (on models without PTO).
- Move the direction lever to "F"/ forwards.
- Release the parking brake: Press down fully the brake pedal, and release it.
- Engage the drive pedal slowly to choose the forwards 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.

Switching off the machine

- Stopping the appliance: Press down the clutch / brake pedal or the brake pedal, or move the drive pedal to "N".
- Switch OFF the cutters, and raise them to the top.

- Remove the ignition key.
- Engage the locking brake before leaving the appliance. To do so, press the brake pedal or the clutch / brake pedal, and depending on the variant:
 - move the lever (Figure 15 or 16b) to (19) or
 - pull the button (Figure 16b) or
 - press the switch (Figure 16c).

Pushing appliances with hydrostatic drive

Push the appliance only when the engine is switched OFF.

- Set the drive lever (Figure 17) to "N" (not available on all models).
- Release the parking brake.
- Release the gear lock (Figure 20):
 a: Push the lever forwards into the recess.

b: Press the lever, and push it up. Return the gear lock lever before restarting the engine.

Mulching

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

Empty grass catcher

See the separate operating instructions for the grass catcher.

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 highgrowing types of grass and other weeds, such as clover, daisies ...). The normal height of a lawn is approx. 4-5 cm. Only one third of this height should be mown, i.e. 7-8 cm should be mown to the normal height. 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

Mulching (using the accessories)

normal height in several stages.

The grass is cut into small pieces (approx. 1 cm) and left to lie on the lawn. The lawn therefore retains a lot of nutrients.

For the best possible result the grass must always be kept short, see also section "Mowing".

Observe the following when mulching:

- Do not mow wet grass.
- Never mow more than max 2 cm.
- Mow slowly.
- Use the max engine speed.
- Clean the cutters regularly.

Transporting the appliance

Drive only short distances between mowing lawns. Use a transport vehicle for longer distances.

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

Caution 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.

Spilt fuel pollutes the environment

The appliance must not be tilted when it is transported

- Prepare a suitable transport vehicle.
- Attach the loading ramp to the vehicle.
- Set the appliance to idle, release the gear lock (for appliances with hydrostatic drive only), and push it by hand on the loading platform.
- Actuate the parking brake.
- Secure the machine to prevent it from moving.

Cleaning / Servicing

⚠ Danger Injury hazard if engine is started inadvertently

Protect yourself against injury. Before all work on this appliance

- switch off the engine,
- remove the ignition key,
- 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.

Cleaning Clean the machine



Do not use high-pressure media for cleaning.

- If possible, clean the machine directly after mowing.
- Place the machine on firm, level ground.
- Move the direction-of-travel lever to position "F" or "R" (not available on all models).
- Actuate the parking brake.

Cleaning the cutting mechanism

Danger Injury hazard due to sharp cutting blade

Wear protective gloves.

On appliances with several cutters, moving one cutter can cause all other cutters to move at the same time. Caution when cleaning the cutters.

Caution Damage to engine

The mower must not be tilted to an angle greater than 30°. This might cause fuel to run into the combustion chamber and could lead to engine damage.

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

Cleaning the grass catcher

- Remove and empty the grass catcher.
- The grass catcher can be cleaned with a powerful water jet from a garden hose.
- Allow the grass catcher to dry off completely before using it again.
- See the separate operating instructions for the grass catcher.

Servicing

Observe the servicing instructions in the engine manual. At the end of the grass-cutting season, have the appliance checked and serviced in a specialist workshop.

Caution Environmental hazard caused by engine oil

Waste oil resulting from a routine oil change should be taken to an approved collection point or specialist disposal company.

Environmental hazard caused by batteries

Used batteries do not belong in domestic waste. Take used batteries to your dealer or a specialist disposal company. Remove the battery before scrapping the mower.

After 5 operating hours

■ First engine oil change.
See engine manual for subsequent intervals.
Use the oil channel or (optional) quick oil drain (Figure 31).

Every 10 operating hours

■ Clean or replace the air cleaner. See engine handbook.

Every 2 months

- Fill the battery cells with distilled water to 1 cm below the filler hole.
- Inflate the tyres in accordance with the specifications on their walls. Tyres without specifications on their walls must be pressurised to 0.9 bar.

Every 50 operating hours

Grass residue and other soiling on the drive gears must be removed at a specialised garage.

Once a season

- Apply multipurpose grease to the teeth on the steering gear.
- Lubricate the front-wheel bearings with multipurpose grease applied through the grease nipples.
- 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 (waterrepellent) grease at a specialised garage.
- Have the cutting blade sharpened or replaced in a specialist workshop.

Once per season arrange for the mower to be inspected and serviced in a specialist workshop.

Laying up the vehicle

⚠ Caution

Damage to mower materials

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

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.
- To protect metal parts from rust, wipe them all down with an oiled cloth or apply an oil spray.
- Charge the battery with 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 the fuel tank (out in the open air only) and service the engine as described in the engine handbook.
- Inflate the tyres in accordance with the specifications on their walls. Tyres without specifications on their walls must be pressurised to 0.9 bar.
- Park the mower in a clean, dry room.

Warranty

The warranty terms issued by our company or importer are valid in every country.

Faults will be repaired free of charge within the framework of the guarantee, provided that they have been caused by a material defect or manufacturing error. In the event of a warranty claim, please turn to your dealer or the nearest branch office.

The engine

The manufacturer of the engine is liable for all engine-related problems with respect to output power, power measurement, specifications, warranties, and service.

More detailed information can be found in the owner / operator handbook provided separately by the engine manufacturer.

Assistance with malfunctions

Danger Injury hazard if engine is started inadvertently

Protect yourself against injury. Before all work on this appliance

- switch off the engine,
- remove the ignition key,
- 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.

Problems that occur while you are using the mower are often caused by something simple which you will probably be able to rectify yourself. In cases of doubt your specialised garage will be pleased to assist you further.

Problem	Possible cause(s)	Remedy
Starter does not react.	Safety lock system has engaged.	To start the engine, first sit down on the driver's seat. Press down fully the brake pedal or engage the locking brake and set the cutting height to "Blade Stop". Switch off the cutters when your appliance features a PTO switch or PTO lever. Install the grass catcher or deflector when your appliance is fitted with a rear ejector (working widths greater than 92 cm).
	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 liquid level in the battery. If required, top up with distilled water up to 1 cm below the inlet opening. Then charge the battery.

Problem	Possible cause(s)	Remedy
Starter does not react.	Fuse has tripped.	Replace the 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	Pull the choke. Move throttle to 💸.
	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.
	Engine defective.	Switch OFF the appliance immediately, and have the engine checked at a specialised garage.
Excessive vibration.	Damaged blade drive shaft or defective cutting blade.	Switch OFF appliance immediately. Have defective parts replaced.
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.	Bowden cable incorrectly set or torn.	Have the Bowden cable adjusted or replaced in a repair shop.
	V-belt torn.	Have the V-belt replaced in a repair shop.