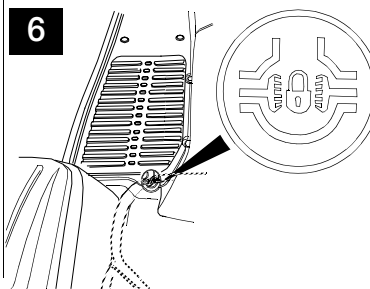
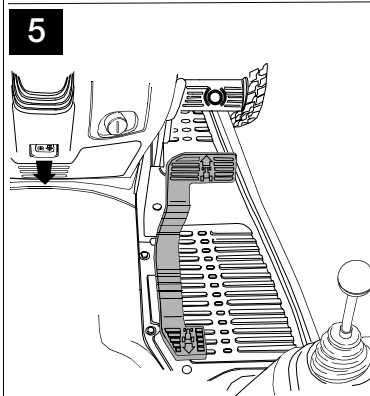
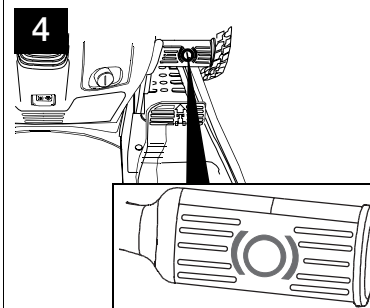
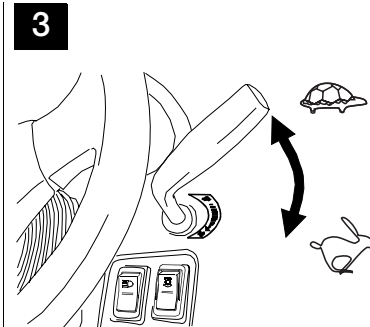
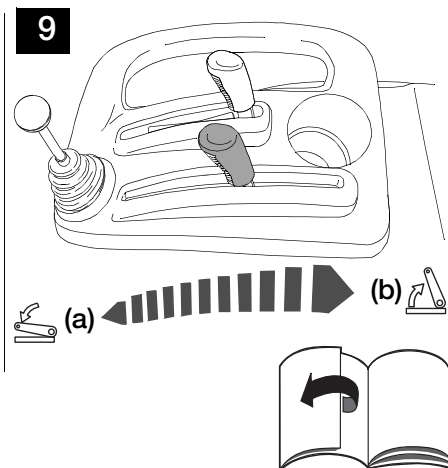
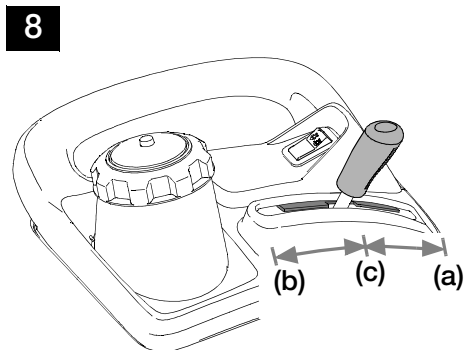
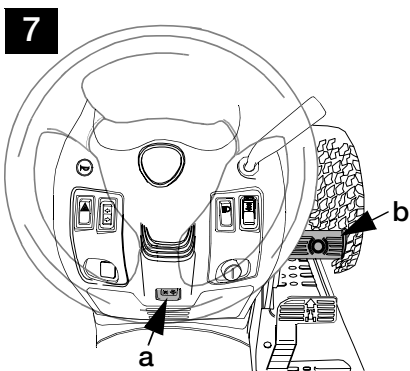
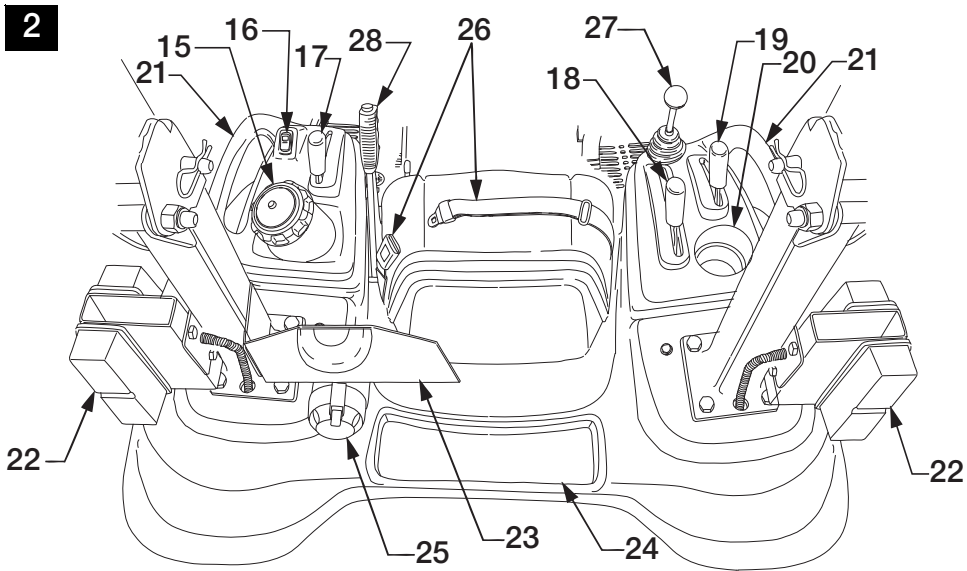
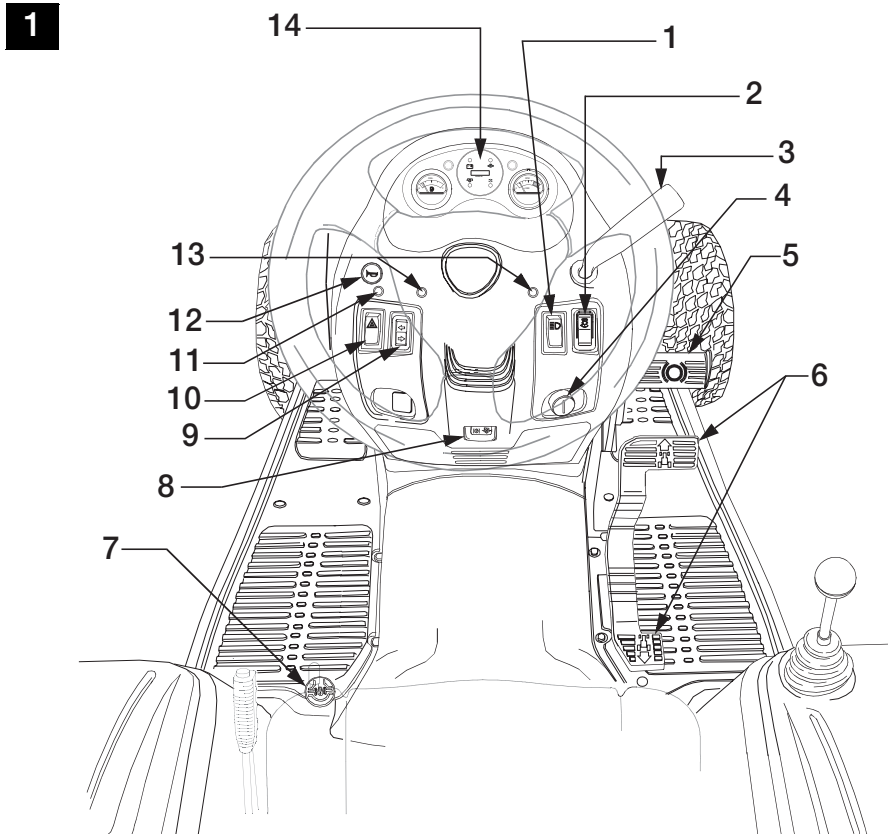
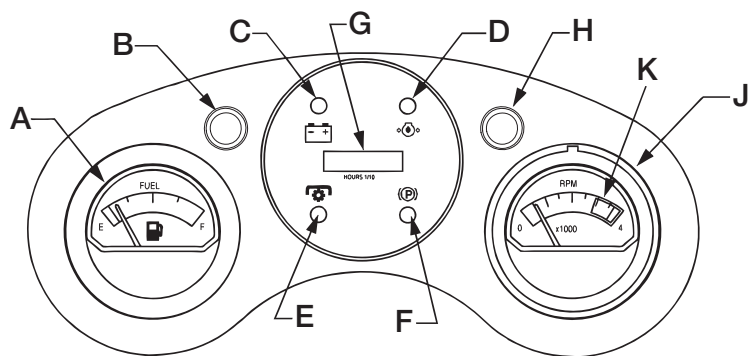


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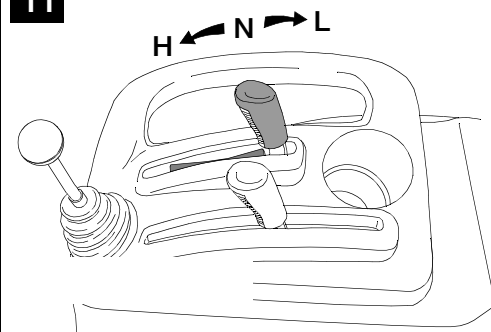




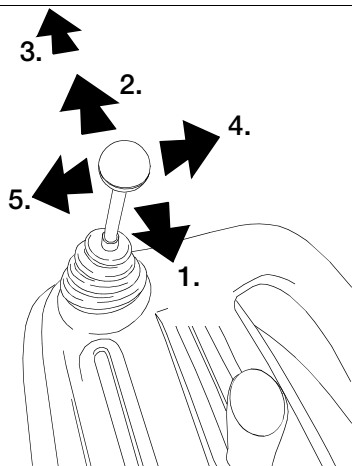
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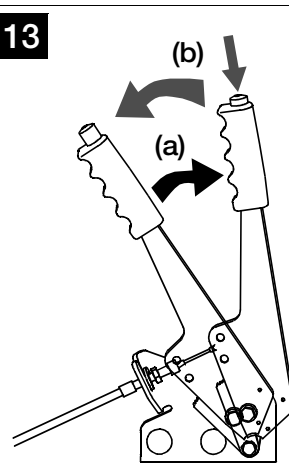
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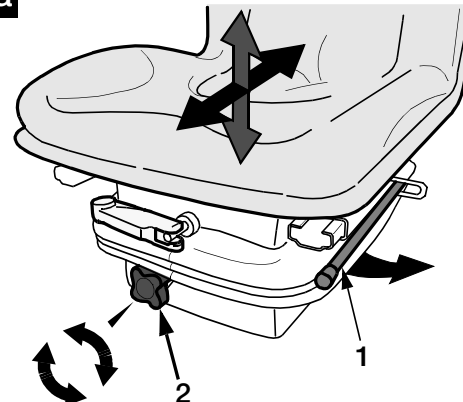
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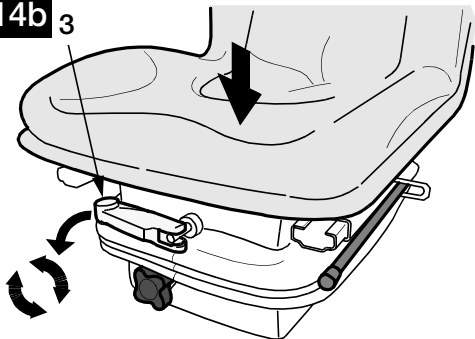
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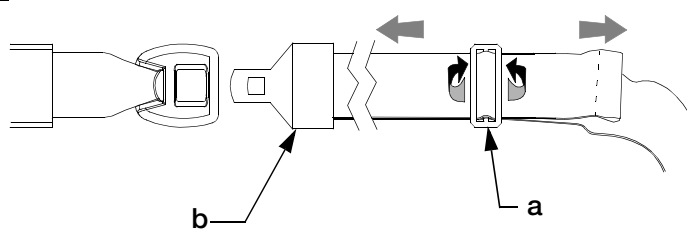
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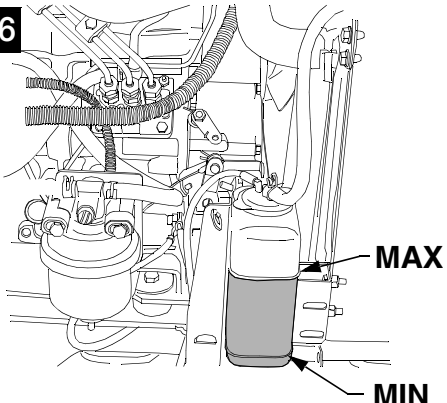
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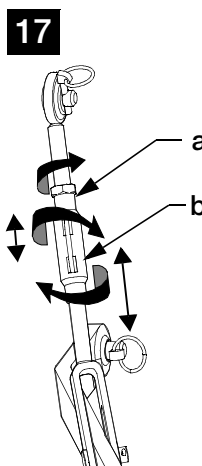
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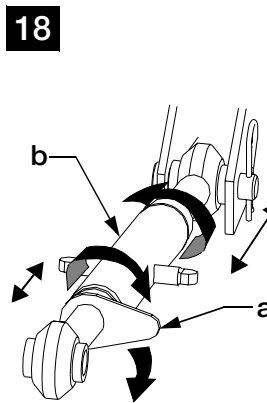
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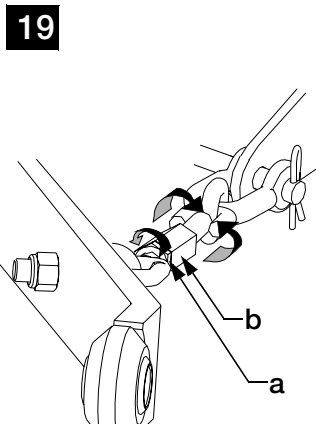
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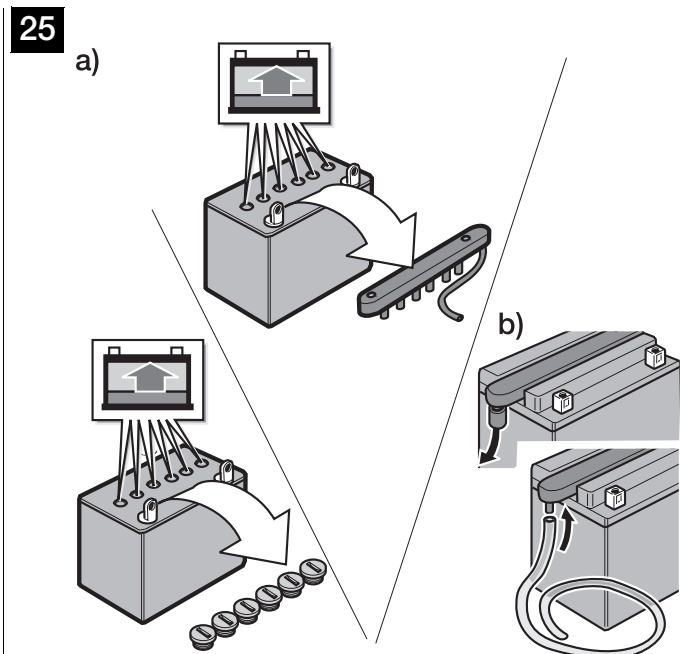
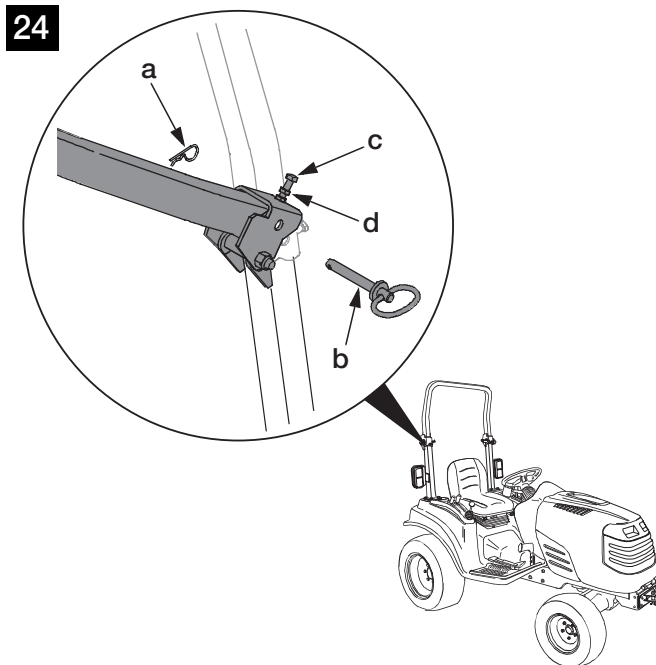
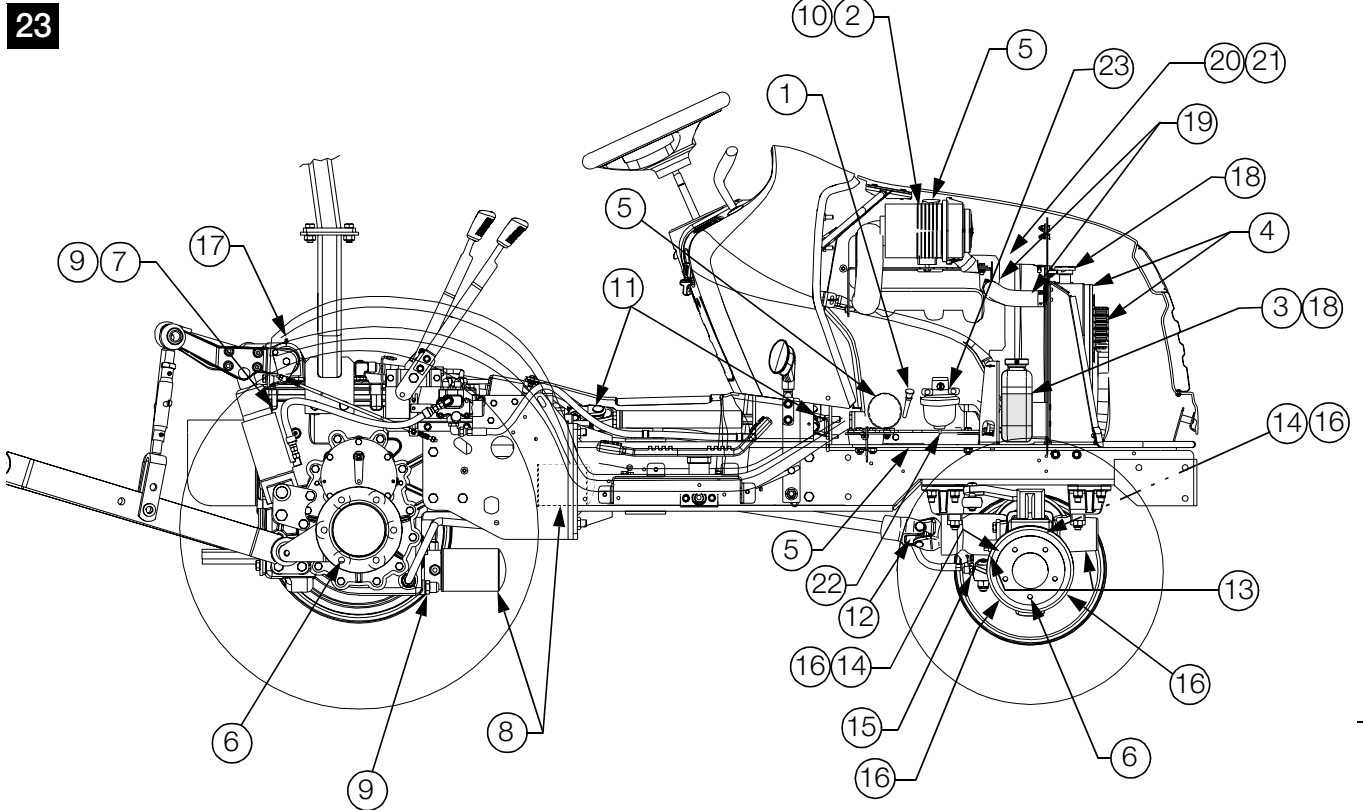
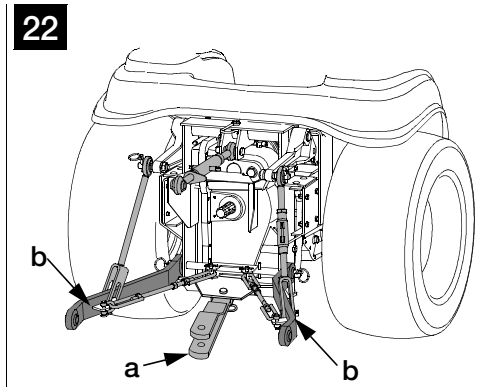
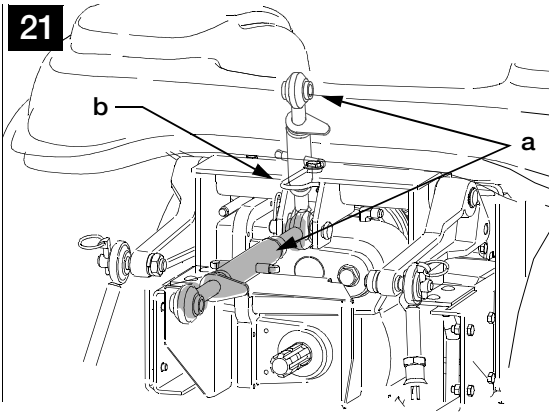
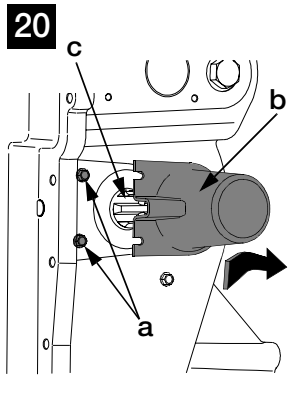


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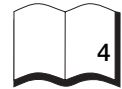
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English



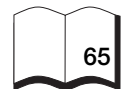
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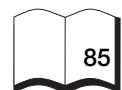
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Nederlands



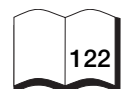
Svenska



Dansk



Español



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Information on the identification plate

This information is very important for subsequent identification, ordering spare parts for the appliance and for the customer service desk.

Enter all information from the nameplate of your tractor into the following box.

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

For your safety

Using the unit appropriately

This appliance is designated for use:

- as a tractor for grass areas, park maintenance as well as for use in the winter;
- in accordance with the descriptions and safety information contained in these operating instructions.

Furthermore, the appliance can be operated using the accessories and attachments authorised by the manufacturer.

This unit is not intended for purposes beyond those listed above. The user is liable for all damage to third parties and their property.

As standard, in its standard configuration, this vehicle is not approved for operation on public roads or for transporting people.

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

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

General safety notes

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

Tell other users about the correct use of the vehicle.

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

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

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

Spare parts must correspond to the requirements laid down by the manufacturer. Therefore, only use original spare parts or spare parts approved by the manufacturer.

Only use manufacturer approved attachments and accessory parts.

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

Before working with the appliance

Persons allowed to use the appliance must not be under the influence of intoxicating substances (e.g. alcohol, drugs or medicine).

Persons under 16 years of age may not operate the appliance. Local regulations may fix the minimum age.

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

When working with the appliance near to public roads and when crossing the street, take care of traffic.

Store fuel in appropriate containers only, and never in the vicinity of heat sources (e.g. ovens or hot-water cylinders).

Do not undertake structural modifications to the appliance and/or settings to the engine.

Replace the exhaust, fuel tank or fuel cap immediately if they become damaged.

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

Whilst working with the appliance

wear appropriate clothing (e.g. safety shoes, long trousers, close-fitting clothes, protective goggles).

Only operate the appliance in a technically flawless state.

Always put the seat belt on, except when the rollbar is folded down.

When driving using the vehicle, no objects may jut out beyond the external contours.

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

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

Ensure that no persons, especially children, or animals are in the area of operation.

The engine must not be operated when cleaning, servicing, adjusting, repairing, and when attaching accessories.

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

Never use the appliance on slopes that are steeper than 20 %. Working on slopes is dangerous; the risk of rollover and sliding is increased. When working on slopes, always drive off and halt the unit gently and gradually. The transmission should always be engaged when driving down a slope – never coast – and drive at a low speed. Never drive across the face of a slope, always up and down the slope.

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

The unit is not authorised for the transport of people. Never allow passengers on the unit.

If you come across a foreign object, bring the vehicle to a halt and turn the engine off. Check the vehicle for possible damage and, where there is damage; redress it at a specialist garage.

Do not touch the exhaust or the sound absorber as long as the engine is running or shortly before turning the engine off. You could burn yourself.

Carry out a thorough safety check before using the vehicle. Keep to the instructions for controlling and servicing the vehicle according to the explanations found in these operating instructions.

The engine cooling system is subjected to pressure. Never open the cooler stopper lid!

Escaping hydraulic fluids can cause severe injuries. Never attempt to feel leaks with your hand!

Before any work on the appliance

Protect yourself from injury.

Before all work on this unit

- turn the engine off,
- remove the ignition key,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled.

After working with the appliance

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

Safety features

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

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

Safety features are:

Rollbar and seat belts

The vehicle is equipped with a rollbar and seat belts (lap seatbelt).

Together, they represent optimal protection for the driver and pillion passenger.



Warning

- Always put the seat belt on when the rollbar is folded upwards.
- Never use the appliance without the rollbar.
- Never use the appliance with the rollbar folded down.
- When operating in fields of crops which are planted in a row, fold down the rollbar at your own risk!
- Never put the seat belt on when the rollbar is folded down.
- In the case of damage or an accident, get the rollbar and seatbelt checked in a specialist garage and where necessary, exchange them. Do not undertake any repairs yourself.

Safety lock system

With the safety lock feature, the engine can only be started if

- the driver is sitting on the driver seat,
- the brake pedal is fully depressed, and/or the parking brake is engaged,
- the engage switch (PTO) is switched off.

The safety lock feature switches off the engine automatically as soon as the driver leaves the driver seat without engaging the parking brake and/or without having switched off the engage switch (PTO).

The safety interlock system automatically switches the clutch switch off (PTO) as soon as the reverse pedal is depressed (provided the PTO switch has not been activated for travel in reverse gear). To turn on the engage switch (PTO) again, you must first switch it off and then switch it on again.

Symbols on the appliance

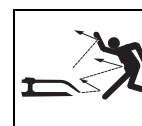
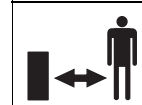
Various symbols are stuck to the appliance in the form of adhesive labels. The following provides an explanation of the symbols.



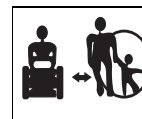
Warning!
Read the operating instructions before starting up.



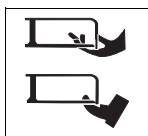
Keep third parties away from the danger area!



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



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



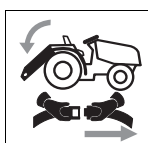
Risk of injury from rotating blades and other rotating parts.



Working on steep slopes increases danger.



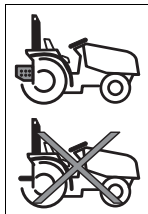
Never fold down the rollbar on a slope.



Never put the seat belt on when the rollbar is folded down.



Always put the seat belt on when the rollbar is folded upwards.



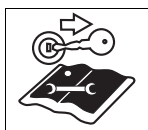
Never operate the appliance without the mounted tractive unit protection.



Warning!
Risk of explosion.



Battery acid/
Risk of injury.



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



Risk of injury through rotating engine fan!

Keep these symbols visible on the appliance.

Symbols used in these instructions

The following symbols are used in these instructions:

Warning

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

Warning

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

Note

Points out important information and tips concerning application.

Details concerning position

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

Note

Graphical representations can vary in detail from the appliance which has been bought.

Note concerning the disposal of packaging

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

Assembling the appliance

Commissioning the battery

Warning

Risk of poisoning and injury from battery acid

Wear protective goggles and gloves. Do not allow battery acid to come into contact with the skin. Should battery acid splash into your face or eyes, wash immediately with cold water and consult a doctor. Should you inadvertently swallow battery acid, drink plenty of water and consult a doctor immediately. Store batteries in a safe place out of the reach of children.

Never tilt the battery; the battery acid may run out. Bring the remaining, unused battery acid to your dealer or to a waste disposal company.

Warning

Risk of fire, explosion and corrosion due to battery acid and battery acid gases.

Immediately clean parts of the appliance upon which battery acid has been sprayed. Battery has a corrosive effect. Do not smoke and keep burning and hot objects away. Store batteries in rooms which are well ventilated and dry. There is a risk of a possible short circuit when working with the battery. Do not place any tools or metal objects on the battery.

Note

The battery is located under the bonnet of the engine (see section "Cleaning and Servicing").

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

(Battery without filler plugs)

The battery is filled with battery acid and is sealed at the factory. However, even a "maintenance-

free" battery requires maintenance if it is to have a longer service life.

- Keep the battery clean
- Avoid tipping the battery.
Electrolyte fluid leaks from a 'sealed' battery, if it is tipped.

If an empty battery (type 2) is supplied

(Battery with filler plugs)

Fig. 25

- Remove the filler plugs of the battery cells.
- Fill each cell slowly with battery acid up to 1 cm below the filling opening.
- Leave the battery to stand for 30 minutes so that the lead can soak up the battery acid.
- Check the level of the battery acid, add more if necessary.
- Before using the battery for the first time, charge it using a battery charger (max. charging current 12 Volt / 6 Ampere) for 2 to 6 hours. After charging the battery, first unplug the charger and then disconnect the battery (see also the operating instructions for the battery charger).
- Re-insert the filler plugs of the battery cells.
- Install the battery in the unit.
- Remove the strip seal from the battery vent. Connect the venting hose so that the free end points downwards in the appliance. The hose must always allow free passage! (Fig. 25b)
- First connect the red cable (+), and then the black cable (-).
- Thereafter, use only distilled water to top up the battery (check every 2 months).
- Keep the battery clean



Warning

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

Fitting:

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

Removal:

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

Servicing the battery (type 1/2)

Before leaving the unit idle for a longer period, it is advisable to remove the battery and charge it. The battery should be charged every 2 months during the idle period (off season), and also before re-commissioning the unit at start of season (consult a specialist garage for further information).

Setting the rollbars upright

Fig. 24

The rollbar is folded down for transportation.

- Remove the linch pins (a) from the securing pins (b).
- Take out the securing pins and set the rollbar upright.
- Place the securing pins through the drilled holes and secure them with the linch pins.
- Tighten the screw (c) and secure the screw with the nut (d).

Controls and indicators



Warning. Damage to the appliance.

The control and indicator functions will be described to begin with. Do not perform any functions at this stage!



Fig. 1

- 1 Vehicle illumination switch
- 2 PTO-switch
- 3 Throttle
- 4 Ignition lock
- 5 Brake pedal
- 6 Forward pedal/Reverse pedal
- 7 Differential lock pedal

- 8 Parking brake
- 9 Indicator switch
- 10 Warning indicator switch
- 11 Pilot light indicator/Warning indicator – trailer
- 12 Horn
- 13 Pilot lights indicator/Warning indicator
- 14 Instrument panel
- Fig. 2
- 15 Tank stopper
- 16 PTO-switch for reverse driving
- 17 PTO selector lever
- 18 Central hydraulics lever
- 19 Gear lever
- 20 Can holder
- 21 Handle bars
- 22 Indicator/Brake lights
- 23 Holder symbol
- 24 Storage area
- 25 12 V connection socket for operating trailer
- 26 Seat belt
- 27 Auxiliary hydraulics lever (optional)
- 28 Additional parking brake

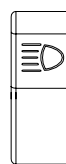


Note

For reasons of clarity, the rollbar is not shown.

Vehicle illumination switch (1)

Fig. 1

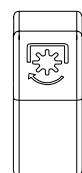


For switching the headlights and instrument panel illumination on.

PTO-switch (2)

Fig. 1

Using the PTO switch, the PTO clutch is switched ON and OFF via an electro-mechanic coupling.



← Engage

← Disengage


Note:


When the safety lock system has automatically disengaged the appliance (e.g. reversing with the PTO clutch engaged), the switch must first be switched OFF and then ON in order to release the coupling lock.

Throttle (3)

Fig. 3

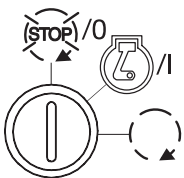
The engine speed can be adjusted continuously.

Fast engine speed = .

Slow engine speed = .

Ignition lock (4)

Fig. 1



Starting:

Turn key clockwise to position 1 between STOP and 0. When the pilot light on the glow plug goes out, turn the key to 0 until the engine is running, then release. Key is in position 1 between STOP and 0.

Stopping:

Turn the key to the left, to STOP/0.

Brake pedal (5)

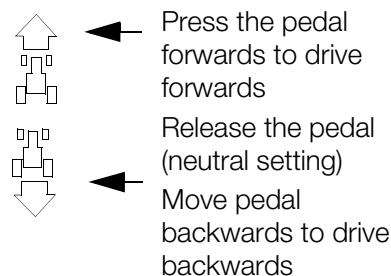
Fig. 4

The brake pedal can be used to brake quickly, to activate and deactivate the locking brake.

Forward pedal/Reverse pedal (6)

Fig. 5

This controls the forward and reverse speed. The further that the pedal is pressed down, the faster the vehicle travels.

**Information on forward/reverse pedal**

In order to stop (to stop and change direction), release the pedal.

Differential lock pedal (7)

Fig. 6

Press the pedal to activate the differential lock. Power is now transferred to both rear wheels (see Section "Activating the differential lock").

Parking brake (8)

Fig. 7

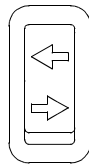
Actuating the parking brake (a): Press down the brake pedal (b) fully, and press the switch (a).

Releasing the parking brake: Press down the brake pedal (b) fully, the switch disengages.

Indicator switch (optional) (9)

Fig. 1

Switches the direction indicator on and off.

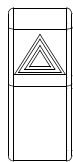


drive to the left

drive to the right

Warning indicator (10)

Fig. 1



Switches the warning indicator on and off.

Pilot light indicator/Warning indicator – trailer (11)

Fig. 1

Horn (12)

Fig. 1



Generates an acoustic warning signal.

Pilot light indicator/Warning light system (13)

Fig. 1

Function indicator for when the indicator switch is actuated and for when the warning indicator is switched on (vehicle and where necessary, a coupled trailer).

Instrument panel (14)

Fig. 10

Tank level indicator (A)

Displays the amount of fuel in the tank when the ignition is turned.

needle on the right = tank is full

Pilot light glow plug (B)

Lights up when the ignition is turned on and goes out when the glow plug has reached the required temperature to start the engine (see 'starting the engine').

Display cluster (C–G)

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

Battery charge indicator (C):

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

Oil pressure (D):

If the indicator light lights up when the engine is running, switch the engine off immediately and check the oil level. Where necessary, visit a garage.

PTO (E):

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

Brake (F):

The indicator light lights up when the ignition is turned if the parking brake is locked.


Operating hour counter/

Battery voltage (G):

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

i Note

When the ignition is switched on, the battery voltage indicator is indicated for a short period and then the operating hours are indicated.

The operating hours are always counted except for when the ignition key is in the /0 position or when it is removed.

i Note

Each time 50 operating hours have elapsed (according to the model), the oil change indicator 'CNG / OIL' appears in the display for five minutes. This message appears after the next two hours of operation. See the engine manual for oil change intervals.

Engine temperature warning light (H)

If the indicator light lights up when the engine is running, switch the engine off immediately and let it cool down. Where necessary, visit a garage.

Revolution counter (J)

shows engine rotation in revolutions per minute (rev/min). Optimum revolution – 3400–3600 rev/min.

i Note

When operating accessories connected to the PTO, the indicator needle should always be in the green area (K) of the revolution counter.

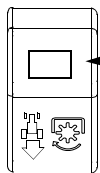
Tank stopper (15)

Fig. 2

PTO-switch for reverse driving (16)


Fig. 2

enables the driver to drive backwards with the PTO gear activated. A pilot light is illuminated in the switch as long as the function is activated.



Engage / Pilot light

i Note

Once activated, the function remains active until the ignition key is turned for at least 20 seconds in the /0 position.

PTO-selector lever (17)

Fig. 8

Switching the power shaft on and off.

- Push the lever forwards in order to activate the middle PTO (2000 rev/min).
- Lift the lever backwards in order to activate the rear PTO (540 rev/min).
- Move the lever into the middle position in order to activate both PTOs at or backwards until it engages.

For actuating, first push the lever slightly to the right and then forwards or backwards, until it engages.

Central hydraulics lever (18)


Fig. 9

Serves to lift and lower attachments to the 3-point attachment device as well as to the mower movement between the axles.

-  lowering
-  lifting

Lowest setting = 'floating setting'

Gear lever (19)

 **Warning. Damage to the appliance.**

Changing the speed should only take place when the the appliance is at a stand!

Fig. 11

The lever serves to select high speed (H) or low speed (L).

High speed - forwards (H)

Forwards approx. 0–17.7 km/h

Reverse approx. 0–8.9 km/h

Slow speed - forwards (L):

Forwards approx. 0–10.2 km/h

Reverse approx. 0–5.1 km/h

Neutral (N):

Decoupled gear For moving the

appliance when the engine is switched off.

For actuating, first push the lever slightly to the right and then forwards or backwards, until it engages.

Can holder (20)

Fig. 2

Handle bars (21):

Fig. 2

For making it easier to get on/off the appliance.

Indicator/Brake lights (22)

Fig. 2

Holder symbol (23)

Fig. 2

Storage area (24)

Fig. 2

12 V connection socket (25)

Fig. 2

It serves for connecting the trailer illumination.

Seat belt (26)

Fig. 2

Auxiliary hydraulics lever (27) - optional

Fig. 12

For controlling the movement of the accessories connected via the auxiliary hydraulics of the appliance.

- Lift the lever backwards in order to raise the front or the lifting accessory / attachment.
- Lift the lever forward in order to lower the lifting accessory / attachment.
- In order to bring the front lifting/mounting appliance into the 'floating setting' push the lever fully forwards until it engages.
- Push the lever to the right, in order to angle the attachment to the right or to empty the shovel.
- Push the lever to the left, in order to angle the attachment to the left or to prop up the shovel.

Additional parking brake (28)

Fig. 13

as an additional securing means for the parking brake when switching the vehicle off.

- a) Actuating the brake:
Lift the lever back.
- a) Release the brake:
Depress the button in the lever and move the lever forwards.

Operating safety

Follow the notes in the engine manual as well!



Warning

As standard, in its standard configuration, this vehicle is not approved for operation on public roads. First of all, inform yourself of the traffic and other regulations which apply to your country.



Warning

Risk of injury

No persons, especially children and/or animals should be allowed to stand close to the mower. They could be injured by stones or similar objects that might be thrown out. Under no circumstances may the unit be operated by a minor.

Be particularly careful when reversing. Ensure that all persons are outside the working area of the unit.

Never empty the grass catcher while the engine is still running.

While emptying the grass catcher, you yourself or some other person could be injured if the contents of the catcher are ejected at high speed.

When working on slopes, there is an increased risk of the unit turning over and of injury to the driver. Never drive across the face of a slope, always up and down the slope. The mower should not be driven on slopes with a maximum incline greater than 20 %. Never turn on a slope.

Never park the appliance on a slope. On the slope, always drive slowly and cautiously. Never change the speed or direction. When mowing wet grass, there is a greater risk of the unit sliding as a result of reduced wheel grip. Only mow when the grass is dry.

Excessive speed can increase the risk of an accident.

Keep a safe distance when working in boundary areas, e.g. near steep slopes and under trees, and when mowing near shrubs and hedges.

Be particularly cautious when driving in reverse.

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

Never park the appliance with attachments. When exchanging PTO powered attachments, the appliance has to be standing and the engine switched off.

The tractive unit should no longer turn. If the cutting tool hits a foreign object (e.g. stone) or if the machine starts vibrating violently: stop the engine immediately. Examine the unit for damages. Consult a specialist workshop if damage has occurred. In the case of mowers with rotary blades, never stand in front of grass ejection openings.

Never place your hands, feet, or other parts of the body on or below rotating parts.

Switch the engine off, remove the ignition key, and disconnect the spark plug key before you clear the ejector of blockages or other hindrances.

Risk of suffocation from carbon monoxide

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

Risk of explosion and fire

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

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

Only fill with fuel when the engine is turned off and has cooled down. Avoid naked flames, the formation of sparks and do not smoke. Only fill the tank in the open air.

Do not start the engine if fuel has been filled up and has overflowed. Wipe the affected areas clean and wait until the fuel has vaporised.

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



Warning

Risk of injury through the appliance being faulty

Only operate the appliance in a flawless state.

Carry out a visual check each time before using the appliance. Check in particular the safety features, cutting tools and mountings, operation elements, and threaded joints for damage and secureness.

Replace damaged parts before operating.



Operating times

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

Before each use



Note

The engine is already filled with oil at the factory – please check and where necessary, top it up.

Check:

- all protective features,
- the engine-oil level (see the engine handbook: section "Servicing"),
- the coolant level (see section "Servicing"),
- the air filter condition (see section "Servicing"),
- the fuel level (see below),
- the tyre pressure,
- the side covering and the area around the air filter for dirt and grass,
- the cutting movement for dirt and residue from mowing.

Check the fuel level:

- Open the tank and add diesel-fuel as required (refer to the engine handbook to determine the correct type of fuel).
- Wipe away any spilt fuel.

Drain condensation from the diesel filter (see section "Servicing").

Preparing for operation

- Park the tractor on an even, solid surface.
- Lock the parking brake.
- Conduct all work with the engine switched off.
- Remove the ignition key.

Set the driver seat

The driver's seat is adjustable in terms of height, longitude and hardness.

Setting the seat longitudinally

Fig. 14 a

- Take your place on the driver seat.
- Pull the lever (1) outwards and bring the seat into the desired position.
- Release the lever and engage the seat by gently moving it forwards and backwards.

Adjusting the height

Fig. 14 a

- Setting the seat higher.
Turn the knob (2) in a clockwise direction.
- Setting the seat lower.
Turn the knob (2) in a clockwise direction.

Setting the driver seat hardness

Figure 14 b

- Swivel the lever (3) forwards such that when turning, the lever does not hit the seat.
- Setting the seat harder:
Turn the lever in a clockwise direction.
- Setting the seat softer:
Turn the lever in an anti-clockwise direction.
- Swivel the lever back.

Setting the seat belt

Fig. 15

Note

If the seat belt is too long or too short to be set by pulling on the upper lying belt, the position of the readjustment clip should be changed. To do this, hold the readjustment clip tightly and pull the under lying belt through the clip.

Move the clip towards the anchor point of the seat to shorten the belt or to make it longer.

Set the final length of the belt with the readjustment clip, the latch and the upper lying belt into the **right** half of the belt.

- In order to lengthen the belt, hold the readjustment clip (a) ends tightly and tip the side of the clip upwards towards the latch.
- While holding the clip, pull the upper lying belt through clip towards the latch (b).
- Hold the belt and pull the latch to the *left* in order to remove the slack in the upper lying belt between the readjustment and the latch.
- To shorten the belt, tip the other side of the clip upwards, pull the free end of the belt to the *right* and pull the latch to the *left* in order to remove the slack.

Filling and checking the oil level

Note

The engine should already have been filled with oil at the factory – please check and where necessary, top it up.

- Fill with 'diesel'.
- Fill the fuel tank to a maximum of 2.5 cm below the lower edge of the filler neck.
- Turn the fuel tank stopper tight.
- Check the oil level.
The oil level must lie between the 'full/max' and 'add/min' mark (see also the engine manual).

Check the cooling water fill level

Fig. 16

The cooling water fill level must be located between the MIN and MAX marker on the adjustment container.

Top up where necessary (see section "Servicing").



Check the tyre pressure

Note

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

- Check the tyre pressure. Correct where necessary (see section "Servicing").
 - front 0.7 bar
 - rear 1.0 bar

Starting the engine



- Sit in the driver seat.
- Set the gear lever to the neutral setting N.
- Switch off the PTO-switch.
- Move throttle to maximum .
- Push the brake pedal down fully or lock the parking brake.
- Turn the ignition key to  /I.

Diesel motors have to be preheated before starting the engine. Reaching the required temperature for starting the engine is indicated by the glow plug pilot light going out.



Note

A warm engine does not need to be preheated.

After the glow plug pilot light (A) has gone out:

- Turn the ignition key to  until the engine runs. (max. 10 sec. for the first starting attempt). Wait for one minute before the next attempt, however at the same time return the key to the  /0 position.


When the engine is running:

- Turn the key back to  /I.
- Slowly turn the throttle in the direction  /idle. Let the engine run warm for approx. 3–5 minutes.



Note

Do not operate the engine when fully loaded until it has heated up.

For temperatures under 0 °C:

- Observe the correct viscosity of the engine oil (see table in section "Servicing" and/or the engine manual).
- Set the throttle lever into position .


Stopping the engine

- Cool the engine down appropriate to the previous workload.
 - In the case of less of a workload.
 - Set the throttle to the  position and let the engine run for approx. 1 minute.
 - In the case of a high workload: set the throttle to the middle setting and let the engine run for 3–5 minutes.
- Set the ignition key to /0.
- Remove the ignition key.
- Lock the parking brake.

Driving the tractor

Warning

Abrupt takeoff, stopping suddenly, and driving at excessive speeds raise the risk of accidents and can cause damage to the unit. Be especially cautious when reversing. Never change the direction of travel or the speed without first bringing the vehicle to a stand. Never set/adjust the driver's seat while the unit is moving.

- Set the driver seat.
- Set the belt and put it on.
- Start the engine as stated.
- Raise the attachments which are mounted to the 3 point attachment device.
- Press the brake pedal down fully and release the parking brakes.
- Set the drive lever to the desired speed (high/low).
- Set the drive lever to the optimum range for the job (as a rule,  maximum).
- Release the brake pedal and slowly actuate the forwards/backwards pedal until the desired speed has been reached. Before starting the journey, make sure that the front wheels are in the desired direction.

Note

The lower drive lever speed setting should

- be used to travel on slopes and uneven ground,
- when using attachments on the PTO.

The forwards/backwards pedal does not work if the parking brake is locked.

Actuating when the parking brake is locked leads to premature wear and tear of the transmission assembly.

Stopping/Parking the tractor

- Release the accelerator and step on the brake pedal until the vehicle comes to a stand.
- Set the gear lever to the neutral setting N.
- Switch off the PTO-switch.
- Stop the engine as stated.
- Lower mounted accessories using the central hydraulics.
- Engage the parking brake and remove the ignition key before leaving the appliance.

Switching the differential lock on and off

Warning

Risk of an accident occurring and damage to the vehicle.

- Only switch the differential lock on when the vehicle is at a stand.
- Do not actuate the differential lock when driving on the road (hardened surface) and at speed (steering difficulties – risk of an accident).

Note

The vehicle is equipped with an automatic four wheel drive which additionally powers the front axles if required.

- Bring the vehicle to a stand.
- Depress the differential lock fully and keep it depressed. The differential lock is activated (even transfer of power onto both rear wheels).

- Release differential lock pedal. The differential lock is switched off.

Note

Releasing the differential lock pedal does not always disengage the differential lock. You may have to reduce the tractor's speed or reverse direction (first stop the appliance) before you can disengage the differential lock.

Four wheel drive

The four wheel drive automatically switches the front axle drive on if the transmission establishes that the wheels have been turned and additional traction is necessary. For this, the user does not have to do anything.

Using the 3 point attachment device

Warning

Before using the 3 point attachment device or (un-)hooking accessories, always switch the PTO and the engine off. Wait until the tractive unit is brought to a stand.

Setting the 3 point attachment device

Fig. 17

- The adjustable lifting arm on the right can be set in order to position the lower transverse links. Loosen the counter nuts (a) and turn the setting pipe (b) in order to shorten or lengthen the lifting coupling. After setting, re tighten the counter nuts on the setting pipe.

Fig. 18

- The length of the upper transverse link is normally determined by the shape of the accessory. In order to set the upper transverse link, loosen the locking lever (a) and turn the setting pipe (b). Tilt the locking lever back again if the desired length is not reached. Set correctly, the upper transverse link lies parallel or almost parallel to the lower transverse links.

Fig. 19

- The length of the lower transverse link bracing at each of the lower transverse links limit the lateral movement of the lower transverse links. Loosen the counter nuts (a) and turn the hex collar (b) in order to adjust the length of the lower transverse link bracing. After setting, retighten the counter nuts.

Note

In order to lift an attachment using the 3 point attachment device, the engine must be running.

Fig. 9



Lowering the attachment (a)

- Push the central hydraulics lever forwards (this also works when the engine is switched off).



Lifting the attachment (b)

- Push the central hydraulics lever back.

Note

The height that the attachment is set at can be altered by pushing the central hydraulics lever. The lowest setting is the 'floating setting'.

Remove the tractive unit protection

Warning

Only remove the tractive unit protection if the tractive unit is used.

Fig. 20

- Loosen the 2 screws (a).
- Pull the tractive unit protection (b) out laterally under the screws and remove the drive shaft (c).


If the PTO is no longer used:

- slide the tractive unit protection over the tractive unit and slide it laterally under the screws.
- Tighten the screws.

Engaging the cutting mechanism or other driven accessories

- Start the engine.
- Set the throttle lever into the middle position.

Engage

- Switch on the PTO-switch.
- Move throttle to .
- Lower the cutting mechanism or accessory (as used) using the hydraulics.

Note

The indicator needle should be in the green area of the revolution counter.

Disengage

- Switch off the PTO-switch.
- Lift the cutting mechanism or accessory (as used) using the hydraulics.

Note

When the tractor is being operated with the PTO, the safety lock feature will

- switch off the engine automatically if the driver leaves the driver seat,
- automatically deactivate the PTO if the unit is driven in reverse.

To turn on the engage switch (PTO) on again, you must first switch it off and then switch it on again.

Important note

The PTO does not normally work if the tractor is driven in reverse. In order to employ PTO even when driving in reverse, the PTO switch operation must be switched on for driving backwards.

Using the PTO-switch for reverse driving

Warning

Be particularly careful when driving in reverse gear with the PTO activated. Ensure that all persons are outside the working area of the unit.

With the PTO switch for reverse driving, it is possible to use the PTO, even when reversing.

- First of all, the PTO must be switched on using the PTO switch.
- In order to activate the function, press the PTO switch at the front downwards. The PTO switch for reverse driving lights up.

Important note

After switching on, this function remains active until the ignition key is turned to OFF for at least 20 sec, regardless how often the PTO is switched on and off using the PTO switch in the meantime. If the PTO switch for reverse driving lights up, the system is activated.

Using the upper transverse link fixture

Fig. 21

The fixture hooks serve to secure the upper transverse link of the 3 point attachment device, if this is not used.

- Hold the upper transverse link (a) upwards, lift the hook rod (b) and slide it fully to the *left* so that it slides vertically into the **right** slot of the fixing clamps.
- Lower the upper transverse link into the hooks on the rod.
- In order to unclamp the upper transverse link, lift the upper transverse link from the securing hooks and then slide the hook rod completely to the **right** and swivel it downwards.

Using the towing device

Fig. 22

Use the towing device (a) only to pull accessories hanging at the rear (e.g. trolleys, trailers) or to pull objects away.

Bring the upper transverse links (b) of the 3 point attachment device into the highest position so that they do not collide with the attached accessory (e.g) trailer.

Warning

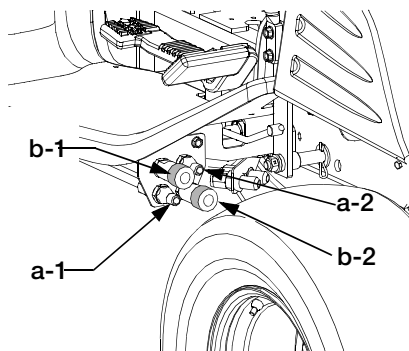
- Always secure the connection between the tractor and the trailer with a safety chain when pulling loads. The safety chain must be at least able to bear the gross weight of the load.
- Only use trailer devices which are approved for the vehicle (mouth and ball-head coupling).
- Observe all of the regulations and instructions concerning operation of the trailer

Using the connective hydraulic valves of the auxiliary hydraulics (optional)

According to the model, the tractor can be equipped with hydraulic valves for accessory appliances.

This package consists of two hydraulic spheres for operating optional equipment which can be installed on the tractor.

The plugs (a) and sockets (b) of the hydraulic connections are located below the right front tread and are marked using coloured discs which correspond to the accessory's colour coded hydraulic lines.



Important note

If no colour coding is given consider that the inner hydraulic connections (a-2, b-2) belong to one hydraulic circuit and the outer ones (a-1, b-1) to the other circuit. Never cross-connect the lines.

The accessories connected to the hydraulic spheres can be controlled via the operating lever for the auxiliary hydraulics.

Weight distribution on the tractor

If accessories are mounted on the front or rear of the tractor, the weight distribution alters correspondingly.

If a rear-mounted accessory is lifted into the transporting position, the tractor's centre of gravity shifts to the rear causing reduced steerability and stability of the tractor.

In order to counteract this dislocation, corresponding counterweights should be attached to the tractor in the form of cast iron (front weights) or in the form of rear ballast containers. However, it is only necessary to mount a sufficient counterweight so as to achieve good traction, steerability and stability. Too much weight overloads the engine and the tractor gear.

When attaching counter weights onto the tractor, it may be necessary to increase air pressure to the tyres.

Note

Your dealer is able to offer you a mounting kit for weights calibrated to the accessory.

Using the front traction gear (depending on model)

The front traction gear can be used to pull loads but also to tow tractors.

Important notes

- Only tow for short distances. For transporting over longer distances, load the tractor onto a trailer or similar means.
- When towing, put the drive lever into neutral.
- Remove the securing pins and bolts.
- Hang the trailer load in the claw and slide the bolt through.
- Secure the bolt with a securing pin.

Lighting

Headlights and tail lights

When working in darkness, always switch the headlights and tail lights on. The headlights do not only illuminate the working area, but increase the visibility of the tractor for all persons falling within the working area.

- To switch the headlamps and tail lights on, press the upper part of the vehicle illumination switch.
- To switch the headlamps and tail lights off, press the lower part of the switch.

It is recommended only to switch the headlamps and tail lights on if the tractor is used in the vicinity of public roads, in order to improve visibility in road traffic.

Indicators

In order to avoid dangers, always indicate the direction of travel.

Drive to the right:

- Pressing the lower part of the indicator switch.

Driving to the left:

- Pressing the upper part of the indicator switch.

Switching off the indicator:

- Indicator switch in the middle setting.

Warning indicators

Always switch the warning indicators on if other persons are to be warned.

- In order to switch the warning indicators on, press the upper part of the warning indicator switch.
- In order to switch the warning indicators off, press the lower part of the warning indicator switch.

Cleaning / Servicing

Warning

Risk of injury through the engine being unintentionally started.

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

- turn the engine off,
- remove the ignition key,
- lock the parking brake,
- wait until all moving parts have come to rest and the engine has fully cooled.

Cleaning

Warning

Do not use high-pressure media for cleaning.

If the unit is not cleaned, material damage and function impairments will occur.

- Where possible, clean directly after working with the vehicle.

Note

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

Servicing the vehicle

Observe the servicing guidelines in the engine manual.

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

Warning

Threat to the environment through engine oil

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

Threat to the environment through batteries

Used batteries do not belong to domestic rubbish. Pass on used batteries to a dealer or a waste disposal company. Dismantle the battery before the vehicle is scrapped.

Servicing and lubricating table

Fig. 23

Ref.-No.	Work to be carried out	Service-intervals										
		before each use	Every 10 hours	Every 25 hours	Every 50 hours	Every 100 hours	Every 200 hours	Every 250 hours	Every 300 hours	Every 500 hours	Every 1000 hours	Before placing into storage
1	Checking engine oil level	•										
2	Checking and cleaning the air filter	•										
3	Checking the engine coolant level	•										
4	Checking and cleaning the radiator grille	•										•
5	Exchanging the engine oil and oil filter ¹⁾				★			•				•
6	Tightening the wheel nuts on the front and rear		★			•						
7	Checking the gear-oil level				•							
8	Exchanging the hydrostatic and hydraulics oil filter ¹⁾			★			•					
9	Exchanging the hydraulics/hydrostatic oil ¹⁾						•					
10	Exchanging the air filter insert								• ²⁾			
11	Lubricating the drive shafts of the rear axle (both ends)				•							•
12	Lubricating the drive shafts of the front axle (both ends)				•							•
13	Lubricating the wheel hubs of the front axle		•									•

Ref.-No.	Work to be carried out	Service-intervals										
		before each use	Every 10 hours	Every 25 hours	Every 50 hours	Every 100 hours	Every 200 hours	Every 250 hours	Every 300 hours	Every 500 hours	Every 1000 hours	Before placing into storage
14	Checking the oil level of the front axle and wheel transmission (both sides)				•							
15	Lubricating the steering servo cylinder (both sides)				•							•
16	Changing the oil – front axle and transmission (both sides) ¹⁾								•			
17	Lubricating the 3 point hub drive shaft				•							•
18	Changing the engine coolant ¹⁾											•
19	Inspecting all pipes and pipe connections										•	•
20	Inspecting the state of the fan belts							•				
21	Replacing fan belts ¹⁾										•	
22	Emptying condensation from the fuel filter	•										•
23	Exchanging the fuel filter ¹⁾									•		

¹⁾ Carry out this servicing at a garage.

²⁾ Shorter intervals if used in dusty conditions.

★ Only necessary after having been put into service for the first time. Thereafter, observe service intervals according to the table.

Have your appliance with attachments checked and serviced once every season at a specialised workshop. Observe the servicing guidelines in the engine manual.

Lubricant table

Application	Lubricant	General information			
		Capacity	API class	Ambient temperature	Viscosity
Engine	Engine oil *	approx. 4.7 l with oil filter	CF-4, CG-4 or CH-4	-30....+30 °C	5W-30
				-20....+40 °C	10W-30
				-20....+50 °C	10W-40
				-6....+50 °C	20W-50
Hydrostatic gear and hydraulic system	Drive System Fluid Plus (hydraulic/gear oil)	approx. 24.6 l			
Front wheel drive axle	Drive System Fluid Plus (hydraulic/gear oil)	approx. 2.4 l			
Grease nipple	Grease	If necessary	251H EP grease or universal lithium grease no. 2		
Cooler and adjustment container	Anti-freeze agent *	approx. 5 l	Use high-grade long-term anti-freeze agent! (Ethylene glycol with substances protecting against corrosion and rust) Coolant mix ratio: Water and/or distilled water 50% Anti-freeze agent 50%		

* Follow the notes in the engine manual as well.

Access to the engine compartment

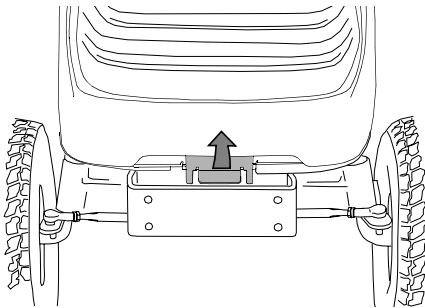
Warning

The engine and the side covering remain hot for a time after the engine has been switched off. Working on hot parts can lead to severe burns. Before you start working in this area, allow all parts to cool first.

- Park the tractor on an even, solid surface.
- Lock the parking brake.
- Conduct all work with the engine switched off.

Opening the bonnet

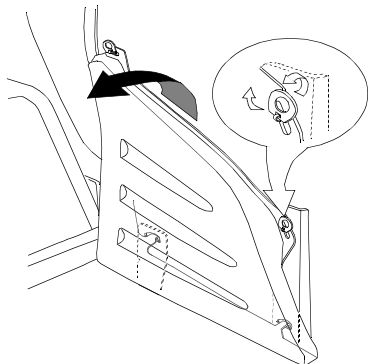
- In order to lift the engine bonnet, look for the ratchet lever in the border slot below the cooler cover.



- Push the ratchet lever upwards and keep hold of it, at the same time tip the bonnet upwards where the slot of the handle is.
- Open the engine bonnet completely such that the bonnet holding cylinder holds the bonnet in the open position.

Removing the side covering

- Fold the tongues of the two snap buckles upwards and turn them such that they fit through the slots in the side covering.



- Tip the upper part of the side covering so far until the two tongues at the lower border of the covering can be pulled out of the slots of the covering holders. Remove the covering.

Re-attach the side coverings

- Bring the two closure tongues into the slots of the covering holders.
- Tip the upper part of the covering towards the tractor and over the snap buckle tongues.
- In order to be able to fully lower the covering, pull the snap buckle tongues out a little and turn a quarter of the way (so that they stand vertical to the slot). Tip the holder tongues downwards.

Engine

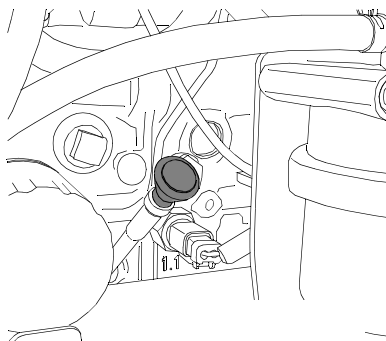
Observe the servicing notes described in the engine manual.

Check engine oil level

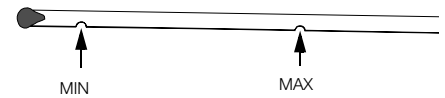
The oil level should be checked in the crank housing before each use. During "running the engine in", the engine oil level should be carefully checked more frequently. The oil level should be checked every hour during the first 5 operating hours.

Only check the oil level when the engine has come to a stand and the tractor is on a level surface. Keep the area surrounding the oil dipstick clean so that no dirt can get into the crank housing.

Let the engine cool down if the tractor has been recently driven so that the oil can flow back into the oil trough.



- To check the oil level, take the dipstick out and wipe it. Place the dipstick all the way into the tube, wait a while, then remove in order to make a accurate reading.



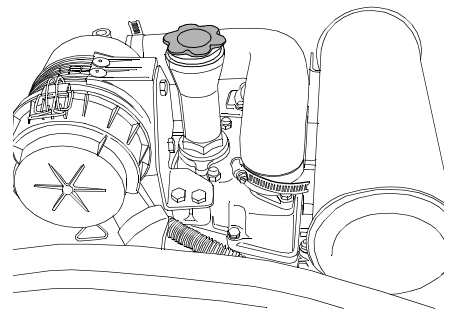
- Always keep the oil level between the MAX (Maximum) und MIN (Minimum) marks on the dipstick.
- Replace the dipstick inserting it firmly into the measuring tube.

Top up the engine oil

Warning

Never overfill the crank housing. The engine can overheat and/or damage can come about if there is too little or too much oil in the crank housing. It is better to fill to the "MAX" (Maximum) on the dipstick than to pour in a set amount. First check the oil level on the dipstick before topping up with oil.

You can read more about the correct engine oil type for topping up and the various environmental conditions under which the engine can be operated in the lubricant table and/or the engine handbook.



- Park the tractor on a level surface and engage the parking brake. Stop the tractor engine and remove the ignition key.
- Keep the area surrounding the oil dipstick clean so that no dirt can get into the crank housing.
- To remove the oil-fill supports, turn the oil-fill lid anti-clockwise.
- Slowly pour oil into the crank housing until it reaches the MAX mark (Maximum) on the dipstick.

- Attach the oil-fill lid to the supports and turn clockwise until it sits securely. Replace the dipstick inserting it firmly into the measuring tube.

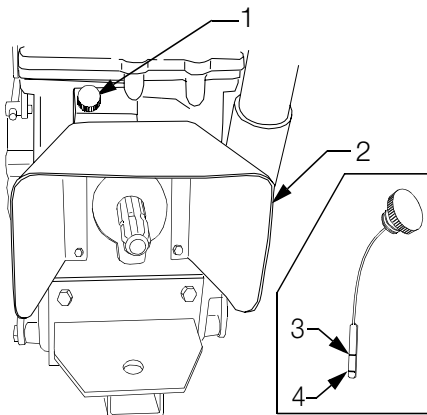
i Important note

The oil-fill lid and dipstick must always sit securely when the engine is running. If this is not done, severe damage can be done to the engine.

Inspecting/topping-up crank and hydraulics oil

The oil level in the hydrostatic cranks /in the hydraulics system should be inspected after every 50 hours of operation. Only inspect the oil level after the engine has come to a stand and the tractor is on a level surface.

The oil-fill lid/oil dipstick (1) is located at the rear end of the tractor, above the rear PTO covering (2).



- Keep the area surrounding the oil-fill lid/oil dipstick clean so that no dirt can get into the crank mechanism.
- Take the dipstick out, wipe it, insert it again and screw it in completely. In order to read the oil level, unscrew and take it out. Always keep the oil level between the MAX (3) and MIN (4) marks.
- If the oil level is too low, top it up with hydraulic oil. Loosely place a funnel into the supports such that the funnel pipe has enough space and that no accumulation of air forms when filling. ONLY fill to the MAX (3) mark, never higher.

i Note

As stated in the lubricating table, always use the hydraulic oil which is best suited to this tractor. Other oils can impair performance and damage the crank mechanism.

- Insert the oil-fill lid/oil dipstick into the crank housing and turn clockwise until it fits securely.

Check the oil level in the front axle and the wheel transmission

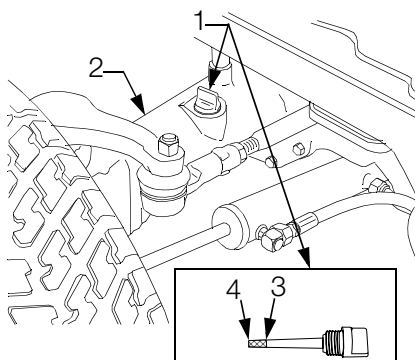
Inspect the oil level on the front axle and in the wheel transmission after every 50 hours of operation.

Only inspect the oil level after the engine has come to a stand and the tractor is on a level surface.

Inspect oil on the front axle

The oil-fill lid/oil dipstick (1) is located on the *left hand side* of the axle housing (2).

- Keep the area surrounding the oil-fill lid/oil dipstick clean so that no dirt can get into the axle housing.
- To remove, turn the oil-fill lid/oil dipstick in an anti-clockwise direction.

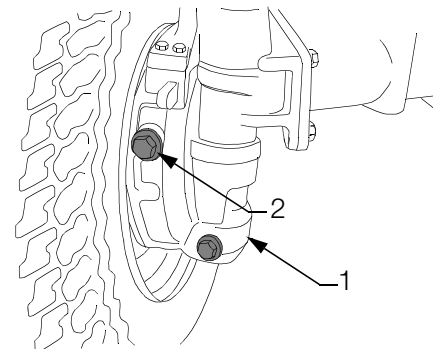


- Take the dipstick out, wipe it, insert it again and screw it in completely. In order to read the oil level, unscrew and take it out. Always keep the oil level between the MAX (3) and MIN (4) marks.
- If the oil-level is too low, only top it up with as much lubricating oil so that the MAX mark is reached on the dipstick. NEVER fill too much oil into the axle housing.
- Insert the oil-fill lid/oil dipstick into the axle housing and turn clockwise until it fits securely.

Inspect the oil in the wheel transmission

Inspect the oil-level at the supports of the two wheel transmission mechanisms.

- The filling supports (2) are located a little way above the wheel hub on the front side of the *right* and *left* wheel transmission (1).
- Unscrew the cap and inspect to see whether there is oil on the lower edge of the filling opening.



- If the oil level is too low, top it up with sufficient lubricating oil up until the lower edge of the filling opening using a funnel with a flexible spout.
- Replace the fill cap on the wheel transmission and screw it tight.

Lubricate according to the lubrication plan

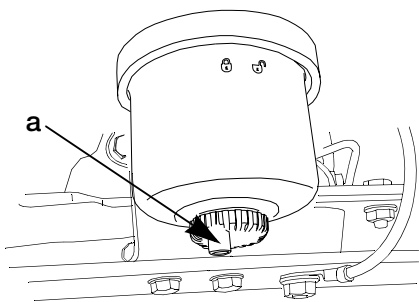
- Use a grease gun at the grease nipples. High-quality lubricating oil should be applied regularly to other moving parts without grease nipples.

Draining condensation from the diesel filter

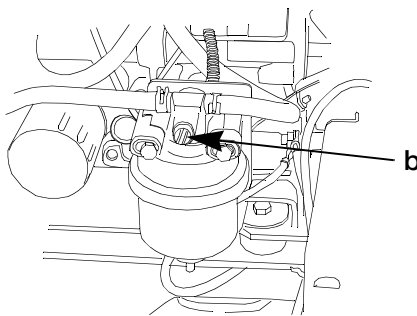
i Note

The diesel filter is located to the right, on the engine. The fuel filter contains a tap for draining off condensation (water) which is residue from the diesel and has collected on the filter base.

- Stop the engine and place a suitable container below the filter draining tap.

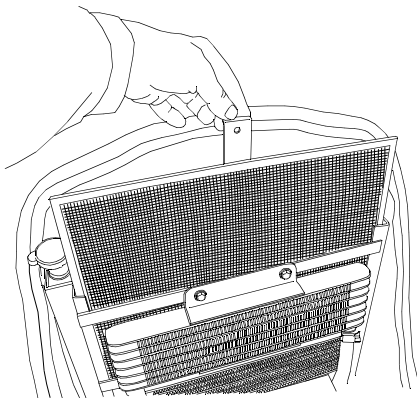


- Turn the draining tap (a) anti-clockwise. Allow the water on the base of the filter to drain until pure diesel runs from the tap.
- Turn the draining tap (a) clockwise.



- Slowly, turn the ventilation knob (b) anti-clockwise until fuel starts to run from it. Close the ventilation tap (a) clockwise.

Cleaning the cooler and cooler grille



- To remove the cooler grille, open the bonnet and carefully take out in the middle where the tongues are. In order to clean its surface, rinse the grille with water.
- Check the engine and transmission oil cooler ribs for accumulation of dirt between the ribs. Blow out dirt from the cooler with compressed air from the engine ventilator side.

- Reinsert the grille, however at the same time make sure that it is inserted into the slots of the cooler frame.

Checking the coolant

Warning

- A lack of coolant leads to serious engine damage
- Carry out a check before starting the engine (for cold engines).

To top up, use a mixture of water and anti-freeze agent with a 1:1 ratio.

Note

If the local water supply is hard or is polluted in some other way, use distilled water for the mixture. Observe the notes provided by the anti-freeze agent manufacturer and those in the engine manual.

Fig. 16

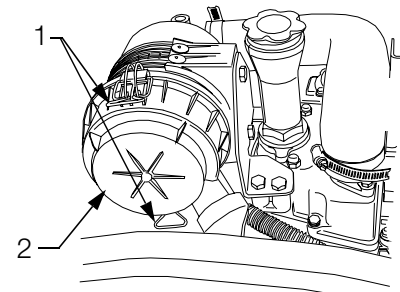
- Open the engine bonnet.
- Check the coolant level on the adjustment container.
- If the coolant level is below the MIN-mark, open the container and fill it with the coolant mixture up until the MAX-mark.
- Close the engine bonnet. Check that it is fully engaged.

Inspect/exchange the air filter insert

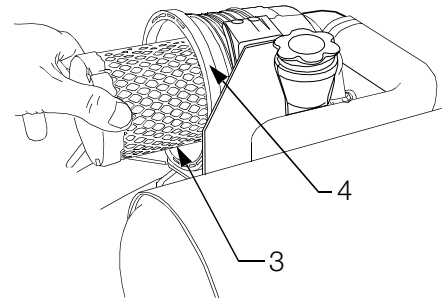
Inspect the air filter daily or before starting the engine. Inspect for loose or damaged components and check the condition of the filter element. Remove accumulations of dirt in the air filter housing.

Exchange the paper filter element after 300 hours of operation. Do this more often if the tractor is used in very dusty conditions.

Inspect and/or exchange the air filter as follows:



- Open the clips (1) in order to take the housing lid off (2).



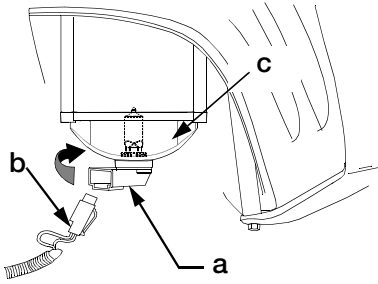
- Remove the filter element (3) from the housing (4).
- Carefully blow away loose dirt from the filter element. Clean the housing.
- Inspect the paper fins of the filter for damages and dirt. Inspect the sealing surface at the inner end of the filter element for wear and tear or damages. Exchange damaged or soiled filter element.
- Press the new air filter completely into the housing.
- Preplace the lid. Attach the two clips to the edge of the housing and engage.

Note

A clean and correctly fitted air filter significantly contributes to the longevity of the engine

Exchanging the headlight bulbs

- Open the engine bonnet.



- On the bulb unit (a), remove the cable (b).
- Turn the bulb unit to the left by a quarter of a revolution and remove from the reflector (c).
- Exchange the bulb with a bulb of the same wattage.
- Replace the bulb unit into the reflector and secure it (by turning a quarter of a revolution to the right).
- Mount the cable on the bulb unit.
- Close the engine bonnet. Check that it is fully engaged.

Exchanging the tail light bulbs

- Turn the bulb mounting anti-clockwise until the tongues on the mounting oppose the notches in the tail light reflector.
- After bringing into line, carefully pull the mounting out of the tail light reflector.
- Remove the bulb from the mounting and replace it with a new one.
- Bring the tongues on the mounting into line with the notches in the reflector and carefully push the mounting into place. Tightly turn the mounting in a clockwise direction.

Exchanging the indicator bulbs

- Loosen the screws on the lens and remove the lens.
- In order to remove the bulb from the lamp mounting, press the bulb in a little and turn it anti-clockwise.
- Align the new bulb on the mounting slot, press the bulb into the mounting and screw it into the mounting in a clockwise direction.
- Secure the lens again using the screws.

Exchanging the fuses

The tractor's electric system is protected from high current damage with fuses. Always replace fuses with those of the same amperage. If the electric system does not work, check for fuses which have been tripped.

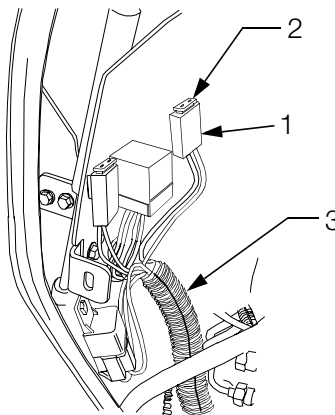
If the electrical system regularly trips, take it to a specialist workshop.

Fuses in the cable trunk

The fuses in the tractor cable (3) trunk protect the entire electrical system of the tractor.

A defective fuse is exchanged as follows:

- Open the bonnet and remove the right side covering



- In front of the cross-sheet, localise the fuse holder (1) directly on the right hand side, on the inner side of the instrument holder.

- Remove the fuse (2) from the holder and replace it with one of the same amperage. NEVER replace it with one of a higher amperage.
- Attach the side covering and reclose the bonnet.

Tyre pressure



Warning

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

The recommended tyre operating pressure is:

For tyre equipment suitable for lawns:

	Dimension	Tyre pressure
front	23 x 9.5 – 12	0,7 bar (0,8 max.)
rear	31 x 12 – 15	1.0 bar (1.3 max.)

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

Notes concerning wheel change



Warning

Only use approved vehicle jacks.

Work safely. Only tighten the screws / nuts crosswise using a torque key. The starting torque for the screws / nuts:

- Front wheels 74 Nm
- Rear wheels 108 Nm

Charging the battery

Check the battery's charged state with a voltmeter. When the charged state is less than 12.6 V (DC) recharge the battery (max 12 V at 10 A) with a battery charger in accordance with the table.

Volt-meter display	Battery charging state	Charging time
12.7 Volt	100 %	–
12.4 Volt	75 %	approx. 90 Min.
12.2 Volt	50 %	approx. 180 Min.
12.0 Volt	25 %	approx. 280 Min.

Note

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

Servicing the battery.

- Always keep the battery clean.
- Avoid tipping the battery. Battery acid may leak out!
- Grease battery poles with terminal grease.

Shutting down the machine

Warning

Damage to mower materials

Only store the unit with the engine cooled down in a clean, dry enclosure. 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 season or if the appliance will not be used for longer than a month:

- clean the mower and the grass catcher.
- Protect all metal parts against rust by wiping them using an oiled cloth or spray with spray oil.
- 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 out the fuel (in an open space) and prepare the engine for storage as described in the handbook for the engine.
- Inflate the tyres in accordance with the specifications on their walls.
- Store the unit in a clean, dry enclosure.

Guarantee

In each country, the guarantee conditions apply which are given out by our company and/or the importer.

We are happy to repair damage to your appliance free of charge within the scope of the guarantee in as far as the damage is believed to be caused by a material or a manufacturing fault. In making a claim against the guarantee, refer to place where the vehicle was sold or the nearest branch office.

Information about the engine

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

Troubleshooting

Warning

Risk of injury through the engine being unintentionally started.

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

- turn the engine off,
- remove the ignition key,
- lock the parking brake,
- Wait until all moving parts have come to rest and the engine has fully cooled.

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

Fault	Possible cause	Remedy
Engine will not start.	<p>The tank is empty.</p> <p>Oil or air in the fuel line.</p> <p>Diesel filter is blocked.</p> <p>Battery does not provide any current.</p> <p>Loose or corroded battery parts.</p> <p>Defective fuse.</p> <p>In winter: the oil has incorrect viscosity.</p> <p>The starting electrics are defective.</p>	<p>Fill with diesel.</p> <p>Visit a specialist garage.</p> <p>Visit a specialist garage.</p> <p>Check the battery, charge it or exchange it.</p> <p>Check the battery. Tighten the contacts. Clean the corroded contacts with a wire brush, tighten again and grease them using terminal grease.</p> <p>Check and exchange where necessary.</p> <p>See notes in the engine manual.</p> <p>Visit a specialist garage.</p>
The engine does not run evenly, or splutters.	<p>There is a fault with the electrical connections.</p> <p>The fuel line is blocked.</p> <p>Impure fuel.</p> <p>Air filter is heavily soiled.</p>	<p>Get the engine setting checked.</p> <p>Visit a specialist garage.</p> <p>Visit a specialist garage.</p> <p>Clean the air filter or exchange it (see engine manual).</p>
The engine overheats. The engine temperature warning light lights up.	<p>Coolant is not sufficient.</p> <p>Dirty / defective cooling system.</p> <p>The air filter is missing or is dirty.</p> <p>Oil is not sufficient.</p>	<p>Switch the appliance off immediately and allow it to cool down!</p> <p>Check it and top it up where necessary.</p> <p>Visit a specialist garage.</p> <p>See engine manual.</p> <p>Top up the oil. See engine manual.</p>
Unusual level of smoke from the engine.	<p>Too much engine oil.</p> <p>Defective engine.</p>	<p>Switch the appliance off immediately!</p> <p>Check the oil level. See engine manual.</p> <p>Get the engine checked in a specialist garage.</p>
Heavy vibrations, unusual noises.	Damaged engine or defective running gear.	<p>Switch the appliance off immediately!</p> <p>Visit a specialist garage.</p>
Electrical defect.	Defective fuse.	Exchange fuse.
Oil pressure light lights up during operation.	Oil is not sufficient.	<p>Switch the appliance off immediately!</p> <p>Check the oil level and top it up where necessary.</p> <p>Visit a specialist garage where necessary.</p>
The glow plug pilot light does not light up when the ignition is switched on.	<p>Defective bulb.</p> <p>Fault with the electrical system.</p>	<p>Visit a specialist garage.</p> <p>Visit a specialist garage.</p>