Original operating manual

Self-propelled mower

Profihopper 1500 SmartLine

SmartLearning

www.amazone.de

Please enter the identification data of the implement. The identification data can be found on the rating plate.

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About this operating manual

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CMS-T-00000081-D.1

1.1 Diagrams

CMS-T-005676-C.1

1.1.1 Warnings and signal words

CMS-T-00002415-A.1

Warnings are marked with a vertical bar with a triangular safety symbol and the signal word. The signal words *"DANGER"*, *"WARNING"* or *"CAUTION"* describe the severity of the potential danger and have the following meanings:

DANGER

- Indicates a direct threat with high risk for severe physical injury, such as loss of limbs or death.

WARNING

- Indicates a possible threat with moderate risk for severe physical injury or death.

CAUTION

- Indicates a threat with low risk for light or moderately severe physical injuries.

1.1.2 Further instructions

CMS-T-00002416-A.1

IMPORTANT

- Indicates a risk for damage to the implement.

ENVIRONMENTAL INFORMATION

► Indicates a risk for environmental damage.

NOTE

Indicates application tips and instructions for optimal use.

1.1.3 Instructions

CMS-T-00000473-B.1

Numbered instructions

CMS-T-005217-B.1

Actions that have to be performed in a specific sequence are represented as numbered instructions. The specified sequence of the actions must be observed.

Example:

1. Instruction 1

2. Instruction 2

1.1.3.1 Instructions and responses

CMS-T-005678-B.1

Reactions to instructions are marked with an arrow.

Example:

1. Instruction 1

➡ Reaction to instruction 1

2. Instruction 2

1.1.3.2 Alternative instructions

CMS-T-00000110-B.1

Alternative instructions are introduced with the word *"or"*.

Example:

1. Instruction 1

   or

   Alternative instruction

2. Instruction 2

Instructions with only one action

CMS-T-005211-C.1

Instructions with only one action are not numbered, but rather shown with a arrow.

Example:

▶ Instruction

Instructions without sequence

CMS-T-005214-C.1

Instructions that do not require a specific sequence are shown as a list with arrows.

Example:

▶ Instruction

▶ Instruction

▶ Instruction

1.1.4 Lists

CMS-T-000024-A.1

Lists without an essential order are shown as a list with bullets.

Example:

- Point 1
- Point 2

1.1.5 Item numbers in figures

CMS-T-000023-B.1

A framed number in the text, e.g. a **1**, indicates an item number in an adjacent figure.

1.2 Other applicable documents

CMS-T-00000616-B.1

A list of other applicable documents can be found in the Appendix.

1.3 Your opinion is important

CMS-T-000059-C.1

Dear reader, our operating manuals are updated regularly. Your suggestions for improvement help us to create ever more user-friendly operating manuals. Please send us your suggestions by post, fax or email.

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Safety and responsibility

2

CMS-T-00002521-E.1

2.1 Intended use

CMS-T-00002522-A.1

- The machine is intended solely for conventional use for the maintenance of green areas and parks.
- The machine is a self-propelled implement.
- The machine is suitable and intended for mowing, scarifying and rolling green areas as well as for collecting and shredding the mowed material. Moreover, the machine is suitable for collecting e.g. leaves, twigs, acorns, chestnuts and other rubbish on the green area.
- When driving on public roads, the machine must comply with the provisions of the applicable road traffic regulations.
- The machine may only be used and maintained by persons who fulfil the requirements. The personnel requirements are described in the section *"Personnel qualification"*.
- The operating manual is part of the machine. The machine is solely intended for use in compliance with this operating manual. Uses of the machine that are not described in this operating manual can lead to serious personal injuries or even death and to machine and material damage.
- The applicable accident prevention regulations as well as generally accepted safety-related, occupational health and road traffic regulations must also be observed by the users and the owner.
- Further instructions for intended use in special cases can be requested from AMAZONE.
- Uses other than those specified under the intended use are considered as improper. The manufacturer is not liable for any damage resulting from improper use, solely the operator is responsible.

2.2 Basic safety instructions

CMS-T-00002523-E.1

2.2.1 Meaning of the operating manual

CMS-T-00006180-A.1

Observe the operating manual

The operating manual is an important document and a part of the implement. It is intended for the user and contains safety-related information. Only the instructions provided in the operating manual are reliable. If the operating manual is not observed, it can result in serious injury or death.

- ► The safety section must be completely read and observed before initial operation of the implement.
- ► Before starting work, also read and observe each section of the operating manual.
- ► Keep the operating manual in a safe place.
- ► Keep the operating manual available.
- ► Hand over the operating manual to the subsequent user.

2.2.2 Safe operating organisation

CMS-T-00002524-C.1

2.2.2.1 Personnel qualification

CMS-T-00002525-A.1

2.2.2.1.1 Requirements for all persons working with the machine

CMS-T-00002529-A.1

If the machine is used improperly, people can be injured or killed. To prevent accidents due to improper use, every person who works with the machine must meet the following minimum requirements:

- The person is physically and mentally capable of controlling the machine.
- The person can safely perform work with the machine within the scope of this operating manual.
- The person understands the functioning of the machine within the scope of their work and can recognise and prevent dangers arising during operation.
- The person head understood the operating manual and can implement the information that is conveyed in the operating manual.
- The person must be familiar with safe driving of vehicles.
- For road travel, the person knows the relevant road traffic regulations and has the prescribed driving permit.

2.2.2.1.2 Qualification levels

CMS-T-00002526-A.1

For working with the machine, the following qualification levels are provided:

- Skilled worker for communal equipment or farmer
- Communal equipment or agricultural helper

As a matter of principle, the activities described in this operating manual can be performed by persons with the qualification level "Communal equipment or agricultural helper".

2.2.2.1.3 Skilled worker for communal or agricultural equipment

CMS-T-00002527-A.1

Skilled workers for communal equipment or farmers use machines to maintain green areas and parks. They decide on the use of a machine for a specific purpose.

Skilled workers for communal equipment or farmers are basically familiar with working with machines for the maintenance of green areas and parks, and if necessary, can instruct communal equipment and agricultural helpers in how to use the machines. They can perform odd tasks and simple maintenance and repair work on communal machines themselves.

Skilled workers for communal equipment or farmers can be e.g.:

- Skilled workers with training in the area of communal equipment.
- Skilled workers by experience, e.g. with comprehensive practical knowledge.
- Farmers with higher education or training from a technical college.
- Farmers by experience, e.g. with an inherited farm or comprehensive practical knowledge.
- Contractors who work by order of municipalities.

Activity example:

- Safety training for communal equipment or agricultural helpers.

2.2.2.1.4 Communal equipment and agricultural helpers

CMS-T-00002528-A.1

Communal equipment and agricultural helpers use machines by order of a skilled worker or the farmer. They are instructed on the use of the machine by the skilled worker or the farmer, and work independently

according to the work assignment from the skilled worker or farmer.

Communal equipment and agricultural helpers can be e.g.:

- Employees of municipalities, contractors or service providers
- Seasonal workers and labourers
- Prospective skilled workers for communal equipment in training
- Prospective farmers in training
- Employees of the farmer, e.g. tractor driver
- Family members of the farmer

Activity examples:

- Driving the machine
- Adjusting the mowing height

2.2.2.2 Workplaces and passengers

CMS-T-00002530-B.1

Passengers

Passengers can fall, be run over and severely injured or killed due to machine movements. Ejected objects can hit and injure passengers.

► Do not let anybody ride on the machine.

► Do not let anybody climb onto the driving machine.

2.2.2.3 Danger for children

CMS-T-00002531-A.1

Danger for children

Children cannot assess dangerous situations and can behave unpredictably. As a result, children are at a higher risk.

► Keep children away.

► *When you drive out or actuate machine movements,*
make sure that there are no children in the danger area.

2.2.2.4 Operational safety

CMS-T-00005215-A.1

2.2.2.4.1 Perfect technical condition

CMS-T-00005218-A.1

Only use properly prepared machines

Without correct preparation according to this operating manual, operational safety of the machine is not ensured. This can result in accidents and serious personal injury or even death.

- ▶ Prepare the machine according to this operating manual.

Perfect technical condition of the machine

Improper repairs can impede the operational safety of the machine and cause accidents. This can result in serious injury or death.

- ▶ Repair the machine according to this operating manual.
- ▶ Perform all maintenance work at the prescribed maintenance intervals.

Danger due to damage to the machine

Damage to the machine can impede the operational safety of the machine and cause accidents. This can result in serious injury or death.

- ▶ *If you suspect or observe damage,*
  secure the tractor and implement.
- ▶ Immediately fix any damage that can affect safety.
- ▶ Fix the damage according to this operating manual.
- ▶ Any damage that you cannot fix yourself according to this operating manual must be fixed by a qualified specialist workshop.

Observe the technical limit values

Non-observance of the technical limits values of the machine can result in accidents and serious personal injury or even death. Moreover, the machine can be damaged. The technical limit values can be found in the Technical Data.

- ▶ Comply with the technical limit values.

2.2.2.4.2 Protective equipment

CMS-T-00005219-A.1

Make sure that the protective equipment is functional

If protective equipment is missing, damaged or removed, implement parts can cause serious personal injury or even death.

- Check the implement at least once a day for damage, proper installation, and functioning of the protective equipment.
- *If you are not sure if the protective equipment is properly installed and functional,* have the protective equipment checked by a qualified specialist workshop.
- Make sure that the protective devices are properly installed and functional before any work on the implement.
- Replace damaged protective equipment.

2.2.2.4.3 Personal protective equipment

CMS-T-00005216-A.1

Personal protective equipment

Wearing personal protective equipment is an important safety element. Missing or unsuitable personal protective equipment increases the risk of damage to health and personal injury. Personal protective equipment includes: work gloves, safety shoes, protective clothing, breathing protection, hearing protection, face protection, and eye protection

- Determine the personal protective equipment required for each job and have it ready.
- Use only protective equipment that is in proper condition and offers effective protection.
- Adjust the personal protective equipment to the person, e.g. the size.
- Observe the manufacturer's instructions regarding operating materials, seed, fertiliser, crop protection products, and cleaning agents.

Wear suitable clothing

Loosely worn clothing increases the risk of getting caught or entangled on rotating parts and getting stuck on protruding parts. This can result in serious injury or death.

- Wear close-fitting, snag-free clothes.
- Never wear rings, necklaces and other jewellery.
- *If you have long hair,* wear a hairnet.

2.2.2.4.4 Warning symbols

CMS-T-00005217-A.1

Keep warning symbols legible

Warning symbols on the machine warn you of risks in danger areas and are an important element of the machine's safety equipment. Missing warning symbols increase the risk of serious and lethal personal injury.

- Clean dirty warning symbols.
- Immediately replace any damaged and illegible warning symbols.
- Put the intended warning symbols on spare parts.

2.2.3 Knowing and preventing dangers

CMS-T-00002653-C.1

2.2.3.1 Safety hazards on the machine

CMS-T-00002654-B.1

Danger due to machine parts still running

When the drives are switched off, machine parts can continue running and cause serious personal injury or death.

- Before approaching the machine, wait until any machine parts that are still running have come to a stop.
- Only touch machine parts that are standing still.

Liquids under pressure

Escaping high pressure hydraulic fluid can penetrate into the body through the skin and cause serious personal injuries. A hole the size of a needle can already result in serious personal injuries.

- *Before you uncouple the hydraulic hose lines or check for damage,*
  depressurise the hydraulic system.
- *If you suspect damage on a pressure system,*
  have the pressure system checked by a qualified specialist workshop.
- Never look for leaks with your bare hands.
- Keep your body and face away from leaks.
- *If liquids penetrate the body,*
  consult a doctor immediately.

2.2.3.2 Danger areas

CMS-T-00002655-C.1

Dangers areas on the machine

The following basic dangers are encountered in the danger areas:

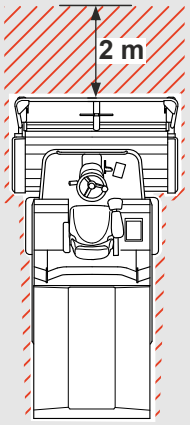
The machine and its work tools move during operation.

Hydraulically raised machine parts can descend unnoticed and slowly.

The machine can roll away unintentionally.

Materials or foreign objects can be ejected out of or away from the machine.

If the danger area is not observed, it can result in serious personal injury or death.



CMS-I-00002310

- Keep people out of the danger area of the machine.
- *If people enter the danger area,* immediately switch off the engines and drives.
- *Before you work in the danger area of the machine,* secure the machine. This also applies for quick checking work.

2.2.4 Safe operation and handling of the machine

CMS-T-00002656-B.1

2.2.4.1 Driving safety

CMS-T-00002829-A.1

Remove dirt and loose objects

Loose objects that do not belong to the machine can fall off the machine or be thrown and cause personal injury.

- *Before you move the machine,* remove dirt, plant residues and loose objects from the machine.

Unsupervised parking

Parked machines that are insufficiently secured and unsupervised represent danger for people and playing children.

- *Before you leave the machine,*
  shutdown the machine.
- Secure the machine.

Parking the machine safely

The parked machine can tip over. People can be crushed and killed.

- Only park the machine on stable and even ground.
- *Before you adjust, maintain or clean the machine,*
  secure the machine.

Preparing the machine for road travel

If the machine is not properly prepared for road travel, it can result in serious traffic accidents.

- Before driving on roads, always prepare the machine for road travel.

2.2.5 Safe maintenance and modification

CMS-T-00002658-C.1

2.2.5.1 Changes to the machine

CMS-T-00002659-A.1

Only authorised design changes

Design changes and extensions can impede the functioning and operational safety of the machine. This can result in serious injury or death.

Vehicles with an official operating permit must be in the state specified by the permit. The same applies for devices and equipment that are connected to a vehicle that has a valid operating permit or approval for road traffic according to German road traffic regulations. This vehicle must also be in the state specified by the permit.

- Have any design changes and extensions performed only by a qualified specialist workshop.
- When making design changes, observe the permissible axle loads, drawbar loads and total weights of the machine.
- *To ensure that the operating permit remains valid in accordance with national and international regulations,*
  use only conversion parts, spare parts and special equipment approved by AMAZONE.

2.2.5.2 Work on the machine

CMS-T-00002660-C.1

Only work on the machine when it is at a standstill

If the machine is not standing still, part can move unintentionally or the machine can be set in motion. This can result in serious injury or death.

- ► Before performing any work on the machine, shutdown and secure the machine.
- ► *To immobilise the machine,*
  perform the following tasks
- ► If necessary, secure the machine against rolling away with wheel chocks.
- ► Lower lifted loads down to the ground.
- ► Relieve the pressure in the hydraulic hose lines.
- ► *If you have to work on or under raised loads,*
  lower the loads or secure raised machine parts with a hydraulic or mechanical locking device.
- ► Switch off all drives.
- ► Actuate the parking brake.
- ► Particularly on slopes, additionally secure the machine against rolling away with wheel chocks.
- ► Remove the ignition key and carry it with you.
- ► Remove the key from the battery circuit breaker.
- ► Wait until all parts that are still running come to a stop and that hot parts cool down.

Maintenance work

Improper maintenance work, particularly on safety-related components, endangers operational safety. This can result in accidents and serious personal injury or even death. Safety-related components include, for example, hydraulic components, electronic components, frames, springs, trailer coupling, axles and axle suspensions, lines and tanks containing flammable substances.

- *Before you adjust, maintain or clean the machine,*
  secure the machine.
- Repair the machine according to this operating manual.
- Only perform the work that is described in this operating manual.
- Maintenance work that is not described in this operating manual should only be performed by a qualified specialist workshop.
- Maintenance work on safety-related components should be performed only by a qualified specialist workshop.
- Never perform welding, drilling, sawing, grinding, and cutting work on the frame, running gear or coupling devices of the implement.
- Never modify safety-related components.
- Never drill out existing holes.
- Perform all maintenance work at the prescribed maintenance intervals.

Raised implement parts

Raised implement parts can descend unintentionally and crush or kill people.

- Never linger under raised implement parts.
- *If you have to work on or under raised machine parts,*
  lower the implement parts or secure the raised implement parts with a mechanical support or hydraulic locking device.

Danger due to welding work

Improper welding work, particularly on or close to safety-related components, endangers the operational safety of the implement. This can result in accidents and serious personal injury or even death. Safety-related components include, for example, hydraulic components and electronic components, frames, springs, coupling devices to the tractor such as the 3-point mounting frame, drawbars, trailer support, trailer coupling, tensioned crosspiece as well as axles and axle suspensions, lines and tanks containing flammable substances.

- Allow only qualified specialist workshops with suitably approved personnel to perform welding work on safety-related components.
- Only allow qualified personnel to perform welding work on all other components.
- *If you have doubts as to whether a component can be welded,*
  ask a qualified specialist workshop.
- *Before welding on the implement,*
  uncouple the implement from the tractor.

2.2.5.3 Operating materials

CMS-T-00002661-B.1

Unsuitable operating materials

Operating materials that do not meet AMAZONE requirements can cause implement damage and accidents.

- Only use operating material that meet the requirements in the Technical Data.

2.2.5.4 Special equipment and spare parts

CMS-T-00002662-A.1

Special equipment and spare parts

Special equipment and spare parts that do not meet AMAZONE requirements can impede the operational safety of the machine and cause accidents.

- Only use original parts or parts that meet AMAZONE requirements.
- If you have questions relating to equipment or spare parts, contact your dealer or AMAZONE.

2.3 Safety routines

CMS-T-00002673-A.1

Only work on the machine when it is at a standstill

If the machine is not standing still, part can move unintentionally or the machine can be set in motion. This can result in serious injury or death.

- Before performing any work on the machine, shutdown and secure the machine.

Securing the machine

If the machine is not secured against unintentional starting and rolling away, the machine can be set in motion in an uncontrolled manner, and can run over, crush and kill people.

- Lower any raised machine parts. Relieve pressure in the hydraulic lines by actuating the operating devices. If it is necessary to go under the machine or components: Before starting to work, secure the raised machine or components mechanically against lowering. Otherwise, the machine or components can slowly descend unnoticed and crush people.
- Switch off the engine.
- Actuate the parking brake of the machine.
- Remove the ignition key.
- *Secure the machine against unintentionally rolling away on level ground*
  by applying the parking brake.
- *On uneven ground or on slopes*
  using wheel chocks and the parking brake.

Make sure that the protective equipment is functional

If protective equipment is missing, damaged or removed, implement parts can cause serious personal injury or even death.

- Check the implement at least once a day for damage, proper installation, and functioning of the protective equipment.
- *If you are not sure if the protective equipment is properly installed and functional,*
  have the protective equipment checked by a qualified specialist workshop.
- Make sure that the protective devices are properly installed and functional before any work on the implement.
- Replace damaged protective equipment.

Climbing on and off

Negligent behaviour while climbing on and off can cause people to fall off the ladder. People who climb onto the machine without using the intended access steps can slip, fall, and suffer severe injury.

- Use only the intended access steps
- *Dirt as well operating materials can impede walking safety and stability.*
  Always keep steps and platforms clean and in proper condition, so that safe stepping and standing is ensured.
- Never climb onto the machine when it is in motion.
- Climb up and down facing the machine.
- When climbing up and down, maintain 3-point contact with the access steps and handrails: always keep two hands and one foot or two feet and one hand on the machine.
- When climbing up and down, never hold onto the control elements. Accidental actuation of control elements can unintentionally activate potentially dangerous functions.
- When climbing down, never jump off of the machine.

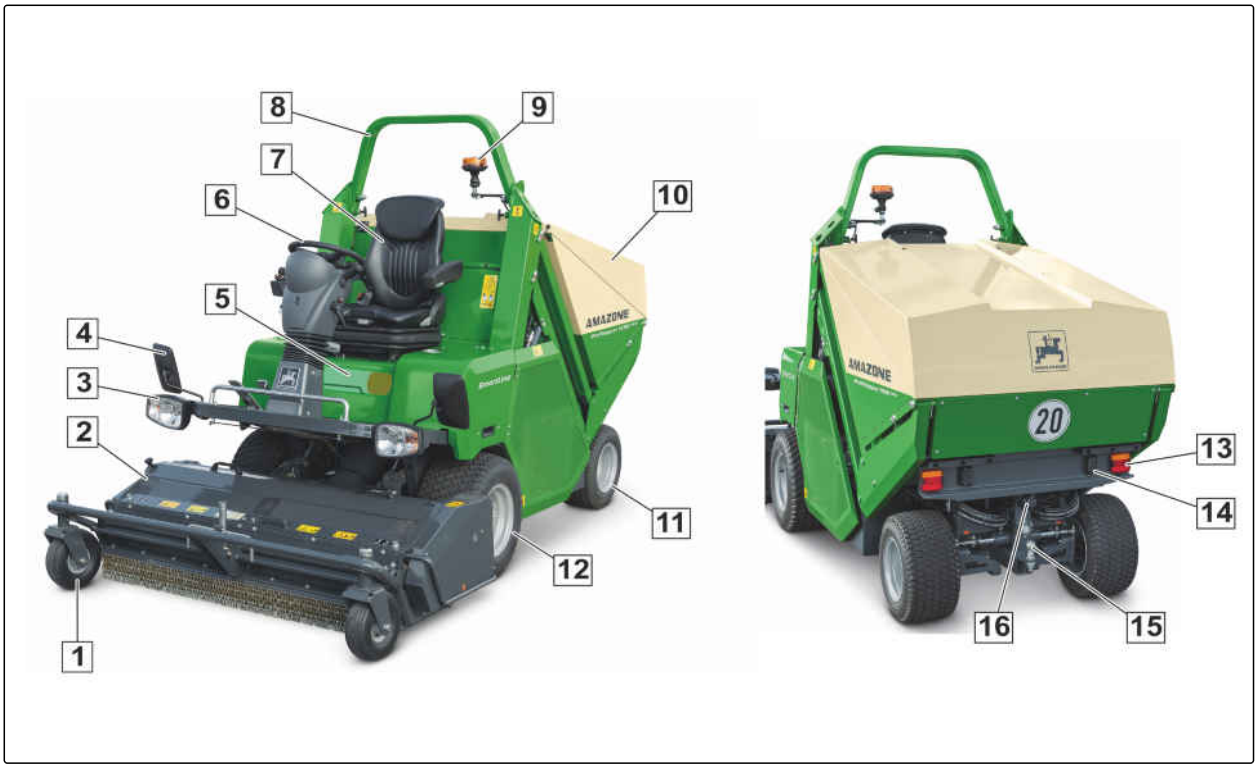
Product description

3

CMS-T-00002402-F.1

3.1 Overview of the machine without cab

CMS-T-00002409-D.1

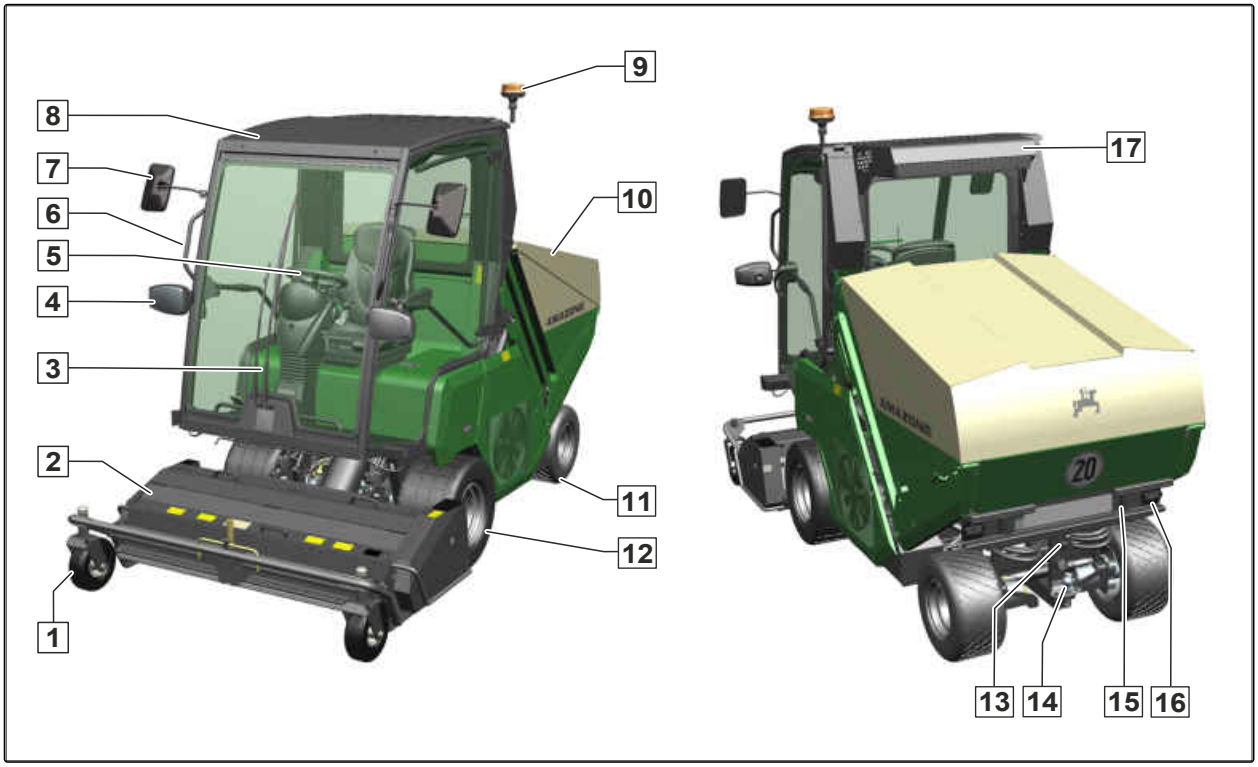


CMS-I-00002232

1	Cutting deck support wheel
2	Cutting deck
3	Front lighting for road travel
4	Exterior rearview mirror
5	Threaded cartridge
6	Steering wheel and controls
7	Driver's seat
8	Roll-over protection
9	LED warning beacon
10	Grass collector
11	Rear wheels, steerable
12	Front wheels
13	Rear lights
14	Licence plate lighting
15	Trailer hitch
16	Socket, power supply for the trailer

3.2 Overview of the machine with cab

CMS-T-00006622-A.1



CMS-I-00004705

1	Cutting deck support wheel
2	Cutting deck
3	Windscreen wipers
4	Front lighting for road travel
5	Steering wheel and controls
6	Holding point
7	Exterior rearview mirror
8	Cab
9	LED warning beacon
10	Grass collector
11	Rear wheels, steerable
12	Front wheels
13	Socket, power supply for the trailer
14	Trailer hitch
15	Licence plate lighting
16	Rear lights
17	Air conditioning system

3.3 Special equipment

CMS-T-00002838-D.1

- Cab
- Deluxe driver's seat
- Primo XL driver's seat
- Lighting and identification for road travel
- LED warning beacon

- Work floodlights
- Exterior rearview mirror
- Trailer hitch
- Radio in the cab
- Air conditioning system

3.4 Protective equipment

CMS-T-00002403-D.1

3.4.1 Safety switch

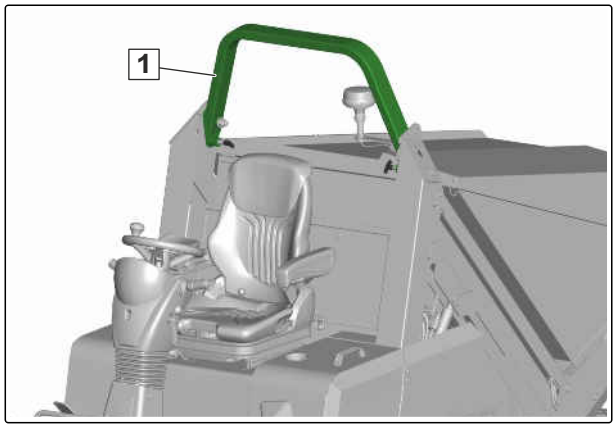
CMS-T-00002614-B.1

Position of the safety switch	Task
Safety switch on the engine	Switches the cutting deck off if the engine temperature exceeds 110°C.
Safety switch on the driver's seat	Switches the engine off when the driver's seat is not occupied and the parking brake is not applied. Switches the engine off if the driver's seat is not occupied and the cutting deck is still switched on.
Safety switch on the grass collector	Switches the engine off if the grass collector is raised and the cutting deck is still switched on.
Safety switch on the cover of the grass collector	Switches the cutting deck off if the grass collector is completely full.
Safety switch on the cutting deck	Switches the electromagnetic coupling off if the augers are blocked or come to a standstill.

3.4.2 Roll-over protection on machines without a cab

CMS-T-00002414-B.1

If the machine tips over, the roll-over protection 1 protects the driver from injury if he is wearing his seat belt. To be able to drive under obstacles, the roll-over protection can be folded down.

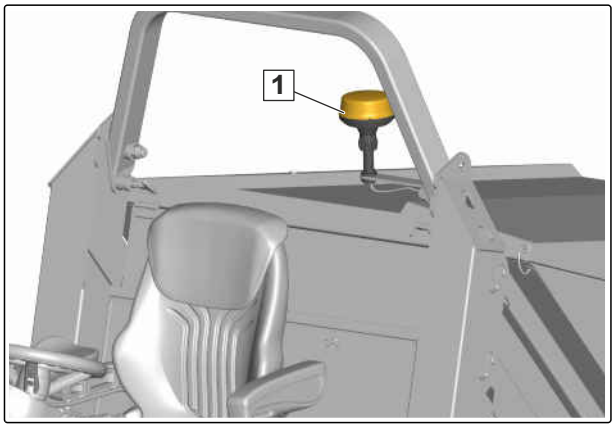


CMS-I-00002239

3.4.3 Warning beacon

CMS-T-00002419-B.1

The warning beacon 1 signalises the surrounding area of potential hazards when standing in the danger area. When driving on roads, the warning beacon signalises other road users of an obstruction due to a slow vehicle.

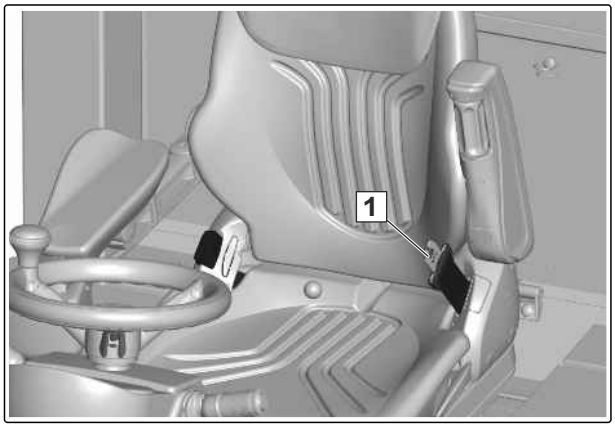


CMS-I-00002238

3.4.4 Seat belt

CMS-T-00002418-A.1

The seat belt 1 protects the driver in case of accidents, especially when mowing on slopes.

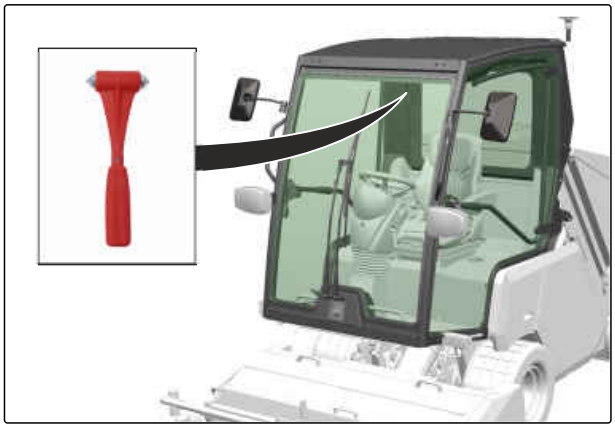


CMS-I-00002237

3.4.5 Emergency hammer in the cab

CMS-T-00006623-A.1

In case of emergency, the emergency hammer can be used to break open a window pane. The broken pane can then be used as an emergency exit.



CMS-I-00004706

3.4.6 Grass collector locking device

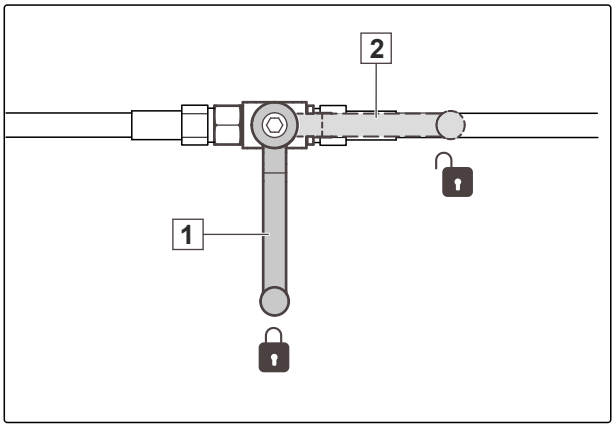
CMS-T-00002422-B.1

The grass collector can be raised to perform maintenance on the engine or to remove blockages in the auger. The grass collector locking devices [1] are located on the left and right side. The grass collector locking devices prevent the raised grass collector from accidentally lowering.

CMS-I-00002236

[1] Grass collector is locked

[2] Grass collector is unlocked

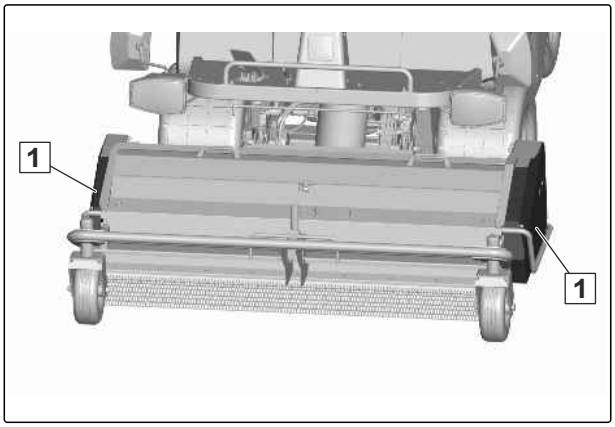


CMS-I-00001022

3.4.7 Transmission V-belt protective cover

CMS-T-00002420-B.1

The transmission V-belt protective cover [1] prevents injury from the transmission V-belt. The protective cover completely covers the transmission V-belt.

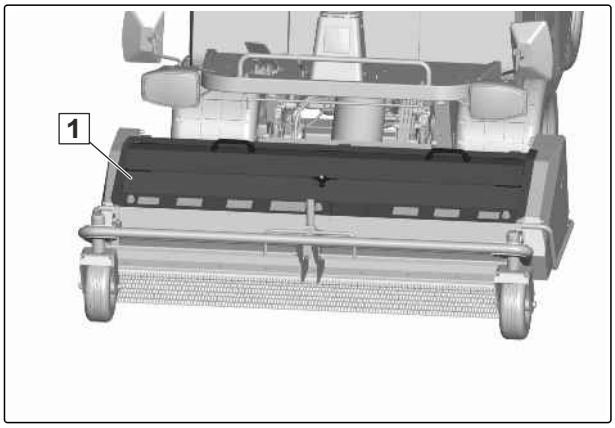


CMS-I-00002235

3.4.8 Rotor protective cover

CMS-T-00002421-B.1

The rotor protective cover 1 prevents injury from the rotor. The rotor protective cover completely covers the rotor.

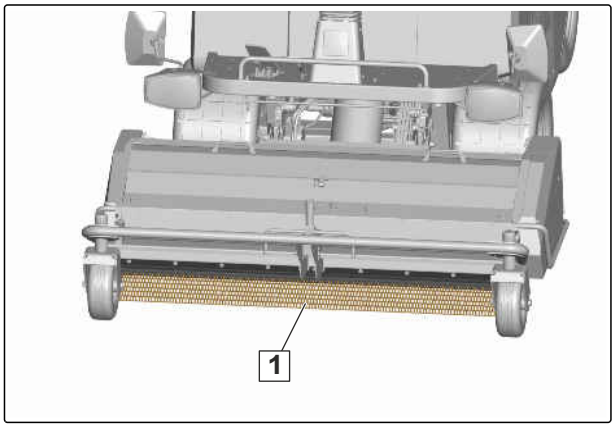


CMS-I-00002234

3.4.9 Chain guard

CMS-T-00002417-A.1

The chain guard 1 protects against foreign objects that are ejected to the front by the active rotor.



CMS-I-00002233

3.5 Rating plate and CE mark

CMS-T-00004429-A.1

The rating plate 1 and CE mark 2 are located on the machine for identification.

The vehicle ID no. 3 is additionally stamped on the front right of the machine.

CMS-I-00002300

The rating plate specifies:

- Vehicle ID no.
- Machine ID no.
- Product name
- Basic weight in kg
- Permissible front axle load in kg
- Permissible rear axle load in kg
- Permissible system pressure in bar
- Permissible total weight in kg
- Factory
- Model year

CMS-I-00001058

CE mark with year of construction

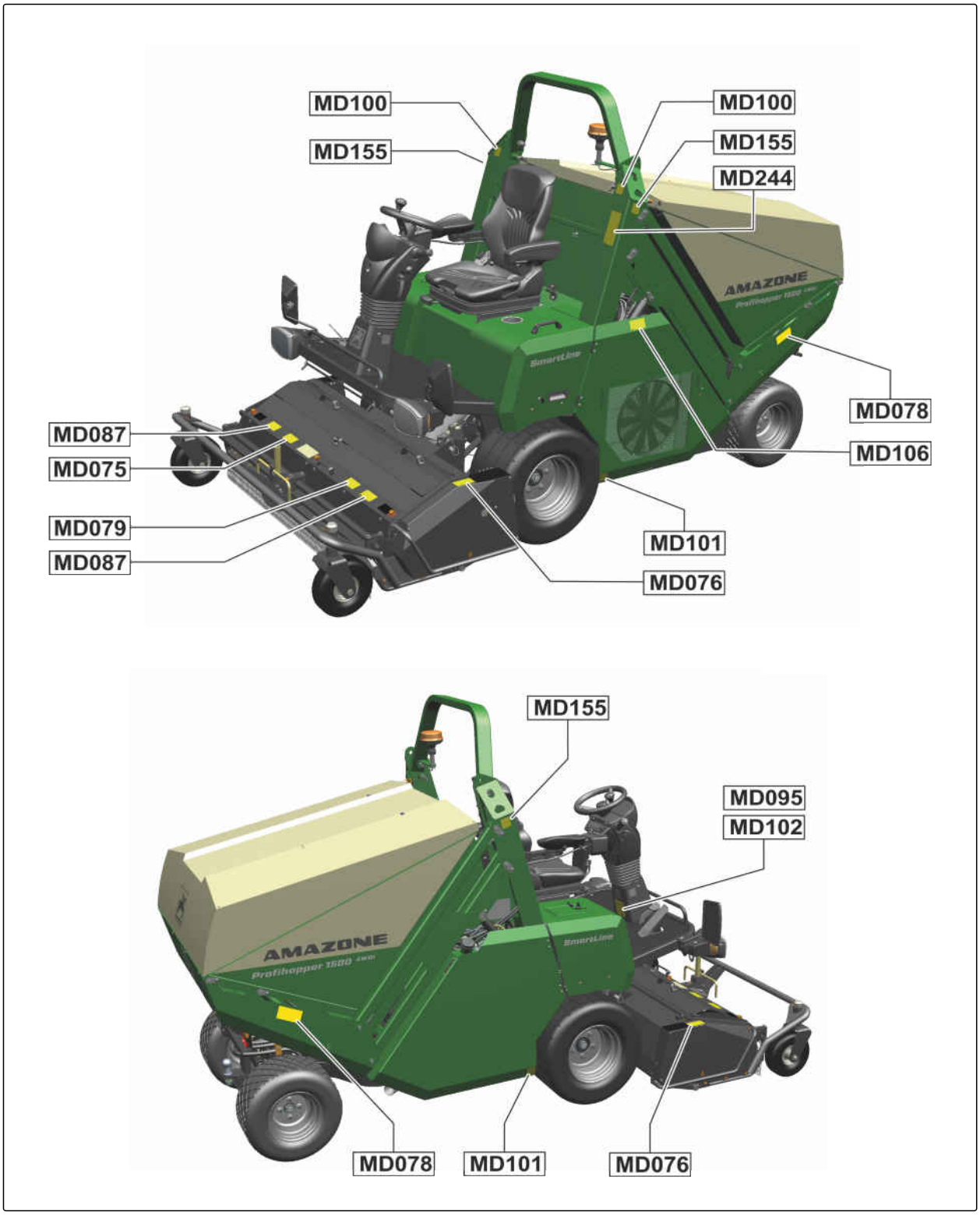
CMS-I-00000512

3.6 Warning symbols

CMS-T-00002408-E.1

3.6.1 Positions of the warning symbols without cab

CMS-T-00001182-E.1

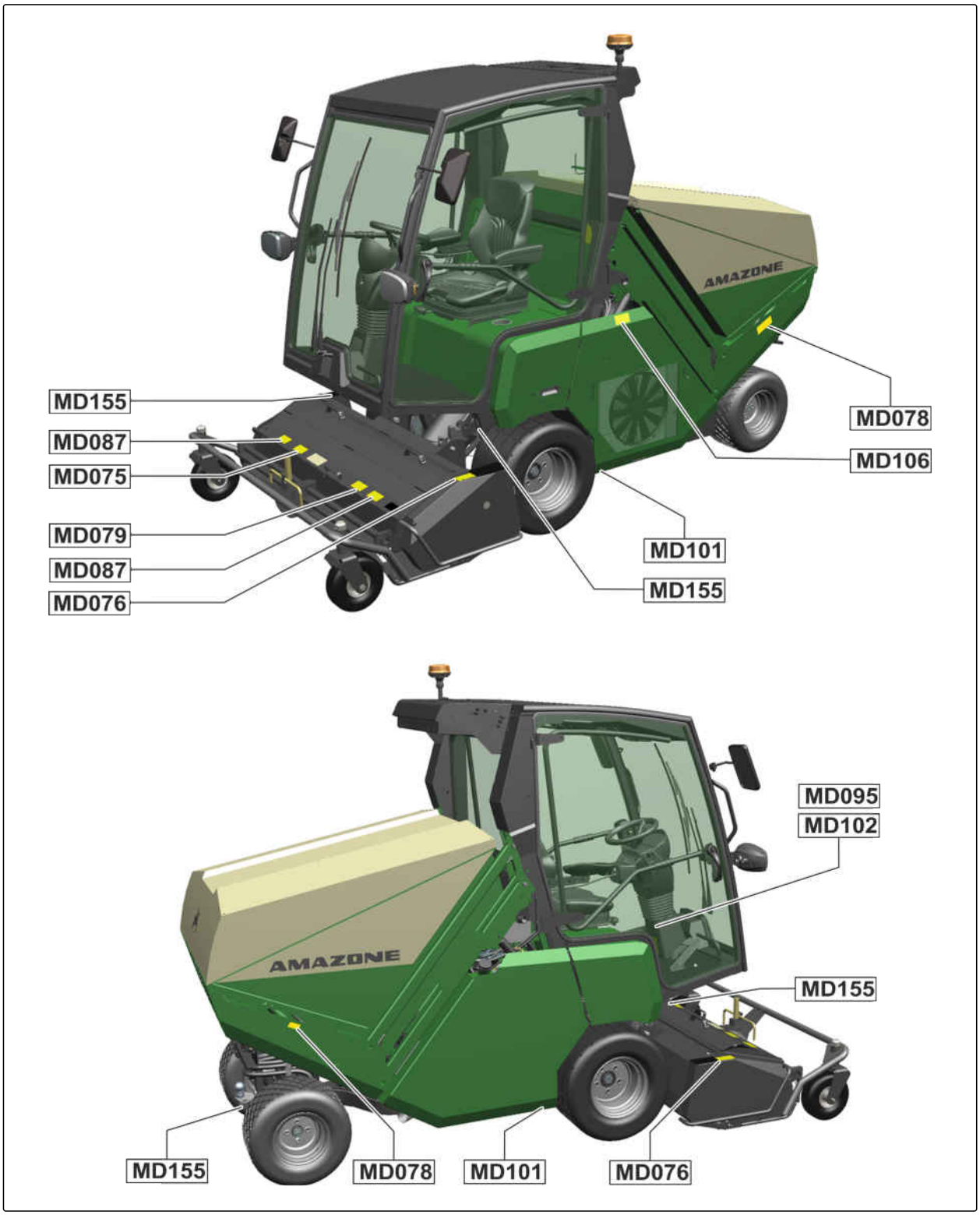


CMS-I-00002250

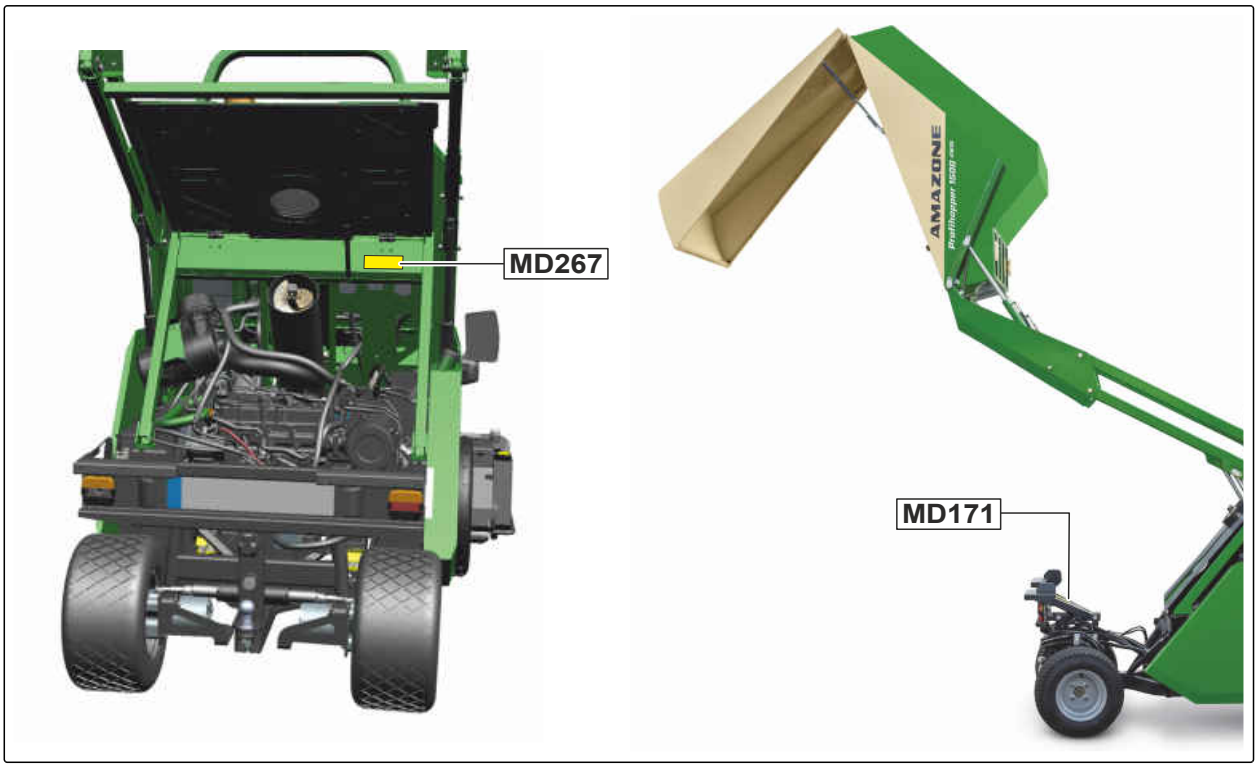
CMS-I-00002249

3.6.2 Positions of the warning symbols with cab

CMS-T-00006630-B.1



CMS-I-00004711



CMS-I-00002249

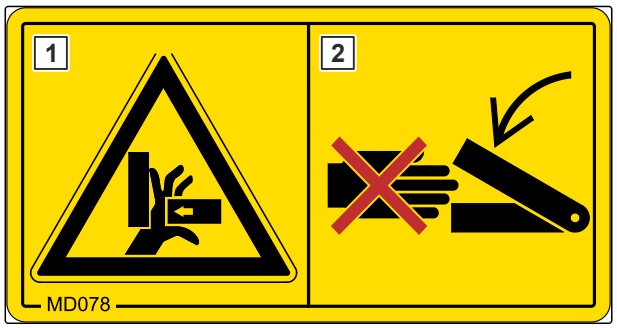
3.6.3 Layout of the warning symbols

CMS-T-000141-D.1

Warning symbols indicate danger areas on the machine and warn against residual dangers. In these danger areas, there are permanent or unexpected dangers.

A warning symbol consists of two fields:

- Field 1 shows the following:
  - A pictogram depicting the danger area, surrounded by triangular safety symbol
  - The order number
- Field 2 shows a pictogram depicting how to avoid the danger.



CMS-I-00000416

3.6.4 Description of the warning symbols

CMS-T-00002430-D.1

MD 075

Risk of cuts for fingers, hands, and arms

- *As long as engine of the tractor or machine is running,*
  stay away from the danger area.
- Wait until all moving parts of the machine are at a standstill before reaching into the danger area.
- Make sure that there is nobody standing in the danger area.

CMS-I-00000418

MD 076

Risk of being drawn in or caught

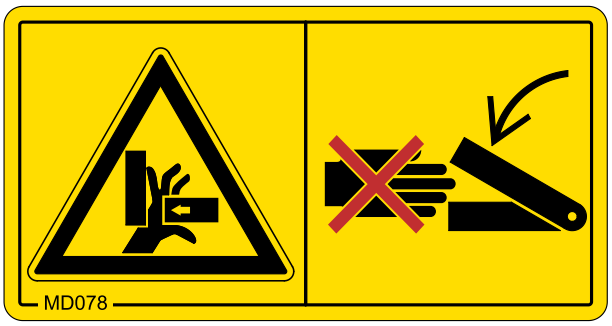
- *As long as engine of the tractor or machine is running,*
  stay away from the danger area.
- *As long as engine of the tractor or machine is running,*
  do not remove any protective equipment.
- Make sure that there is nobody standing in the danger area.

CMS-I-00000419

MD 078

Risk of crushing fingers or hands

- *As long as the tractor engine or implement motor is running,*
  stay away from the danger area.
- *If you have to move marked parts with your hands,*
  pay attention to the crushing areas.
- Make sure that there is nobody standing in the danger area.

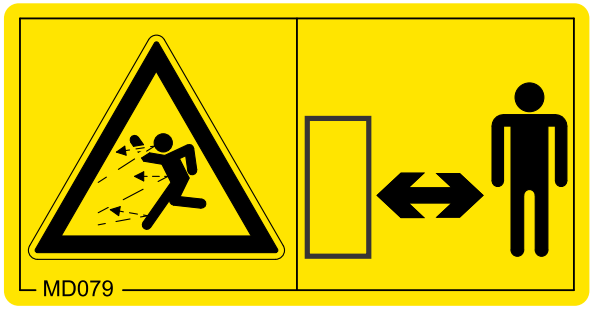


CMS-I-000074

MD 079

Danger due to ejected material

- *As long as engine of the tractor or machine is running,*
  stay away from the danger area.
- Make sure that there is nobody standing in the danger area.

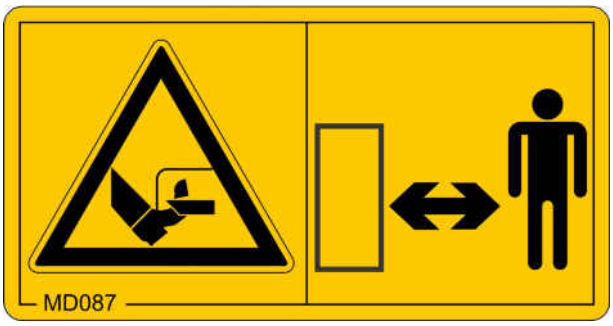


CMS-I-000076

MD 087

Danger due to cutting and moving machine parts

- *As long as engine of the tractor or machine is running,*
  stay away from the danger area.
- Make sure that there is nobody standing in the danger area.



CMS-I-000691

MD095

Risk of accident due to non-compliance with the instructions in this operating manual

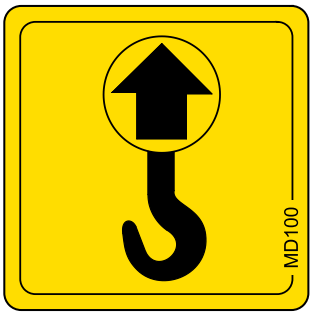
- Before your work on or with the implement, read and understand the operating manual.

CMS-I-000138

MD 100

Risk of accidents due to improperly attached lifting gear

- Only attach the lifting gear at the marked positions.

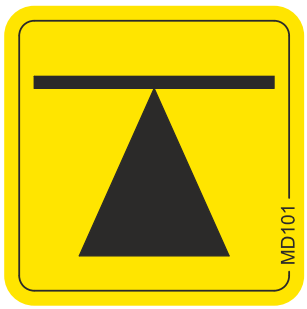


CMS-I-000089

MD 101

Risk of accidents due to improperly attached lifting equipment

- Only attach the lifting equipment at the marked positions.

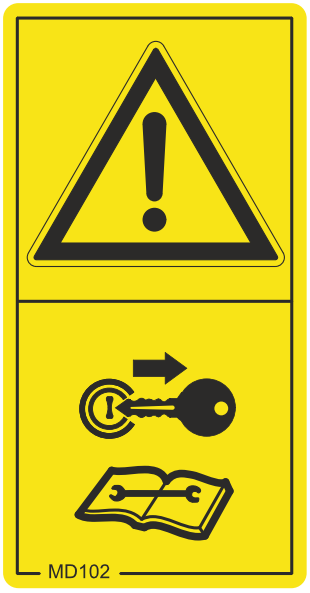


CMS-I-00002252

MD 102

Risk due to unintentional starting and rolling away of the machine

- Before performing any work, secure the implement against unintentional starting and rolling away.



CMS-I-00002253

MD 106

Risk of crushing from the machine parts unintentionally lowering

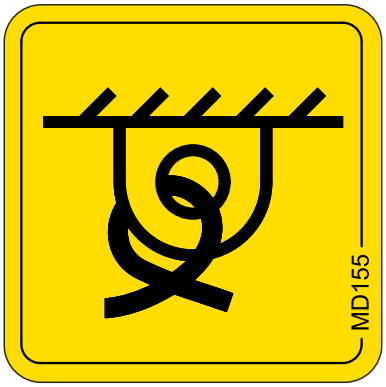
- *Before entering the danger area,* secure raised machine parts with a hydraulic or mechanical locking device.

CMS-I-00000427

MD 155

Risk of accident and machine damage during transport due to improperly secured machine

- Only attach the lashing belts at the marked lashing positions for transporting the machine.



CMS-I-00000450

MD 171

Risk of crushing due to the lifted hopper

- *Before moving the hopper,*
  make sure that there is nobody standing in the danger area.

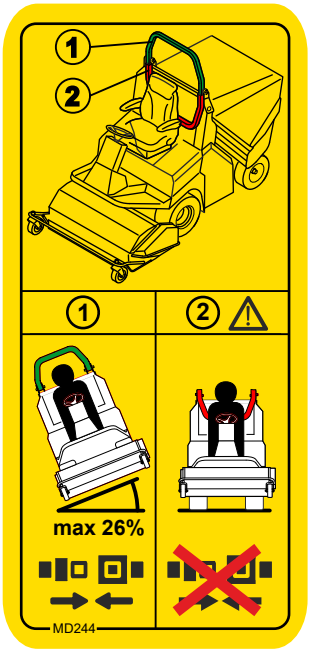
CMS-I-00000469

MD 244

Danger when driving on steep slopes

When driving contour lines on slopes of more than 26%, the machine can tip over and seriously injure or kill the driver.

- Only drive contour lines on slopes of less than 26%.
- Fold up the roll-over protection.
- Secure the roll-over protection.
- Put on your seat belt.
- *When the roll-over protection is folded down,*
  do not put on your seat belt.

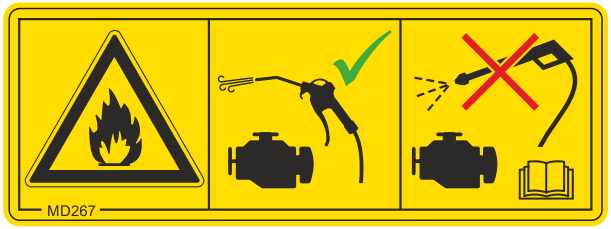


CMS-I-00002441

MD 267

Risk of fire due to grass residues in the area of the engine and exhaust system.

- Clean the area of the engine and exhaust system only with compressed air.



CMS-I-00004983

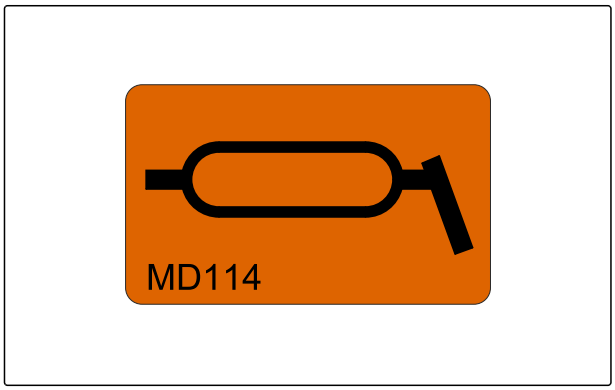
3.7 Other information on the implement

CMS-T-00002404-C.1

3.7.1 Lubrication point labels

CMS-T-00003336-A.1

Marks a lubrication point on the implement.

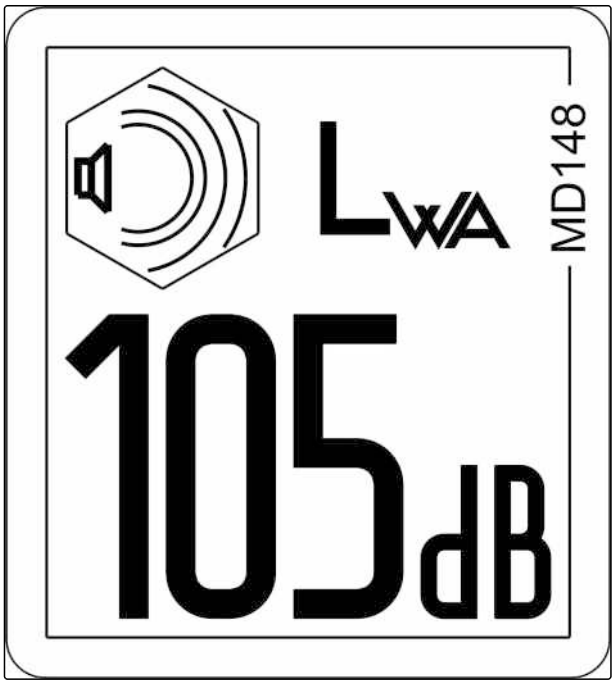


CMS-I-00002270

3.7.2 Sound power level label

CMS-T-00003337-A.1

The sound power level is 105 dB.

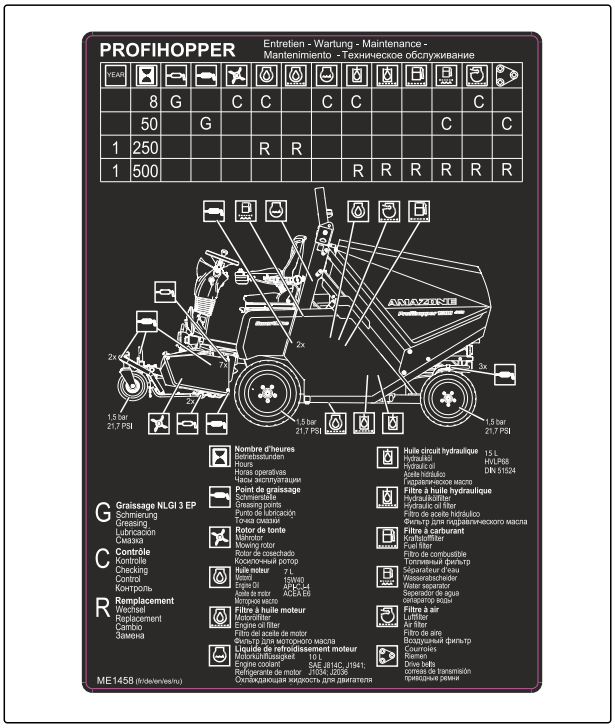


CMS-I-00000445

3.7.3 Maintenance overview

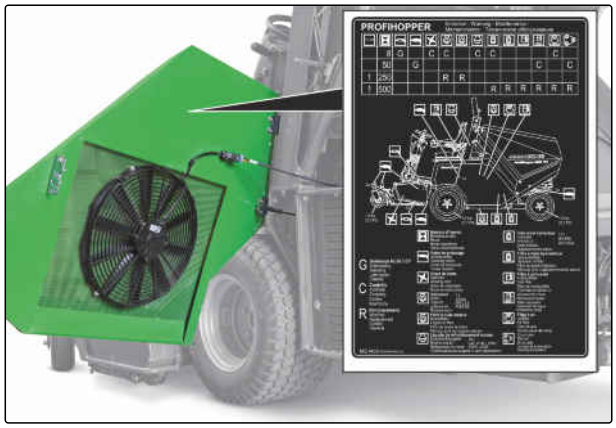
CMS-T-00003724-A.1

Provides an overview of the maintenance work and maintenance intervals.



CMS-I-00002739

The maintenance overview can be found on the inside of the radiator cover.



CMS-I-00003109

3.7.4 Information on the parking brake

CMS-T-00009452-A.1

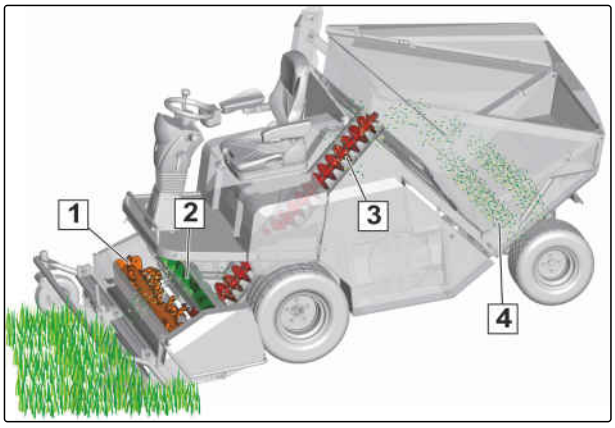
The sticker provides information about the function of the parking brake.

CMS-I-00006411

3.8 Functioning of the machine

CMS-T-00002432-A.1

The rotor [1] and the cutting blades installed on the rotor convey the clippings or collected material to the cross auger [2]. The cross auger [2] conveys the clippings to the middle. The feed auger [3] picks up the clippings and transports them to the grass collector [4].

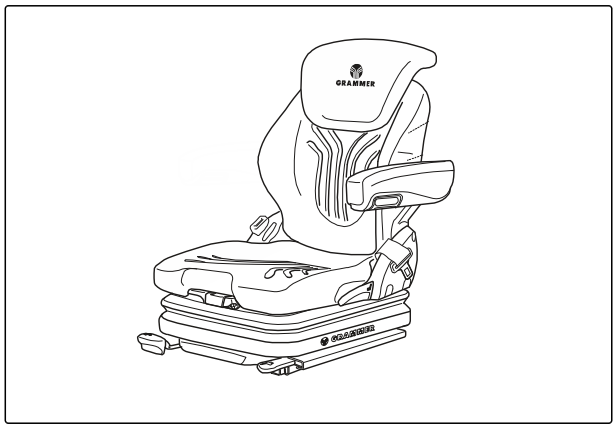


CMS-I-00002258

3.9 Deluxe driver's seat

CMS-T-00002436-B.1

Compared to the standard driver's seat, the Deluxe driver's seat is additionally equipped with an air suspension and a heater.

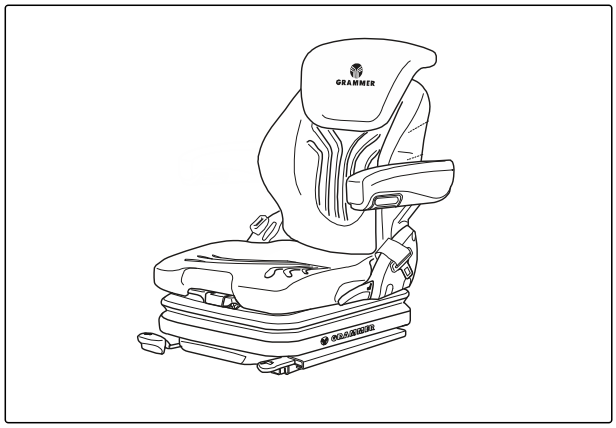


CMS-I-00002273

3.10 Primo XL driver's seat

CMS-T-00002839-B.1

Compared to the standard driver's seat, the "Primo XL" driver's seat is additionally equipped with a low frequency air suspension, longitudinal suspension, and a heater.



CMS-I-00002273

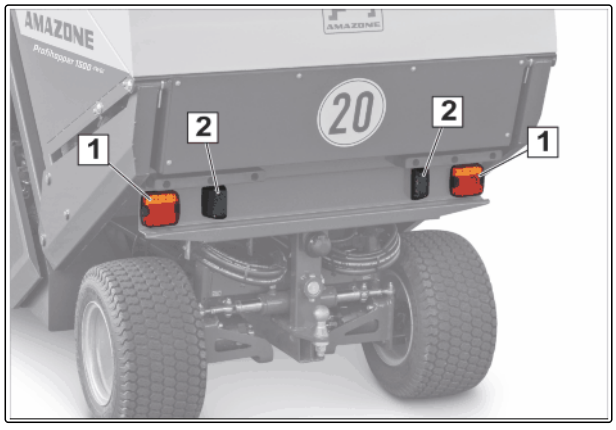
3.11 Lighting and identification for road travel

CMS-T-00002407-C.1

Lighting for road travel, to the rear

1 Rear lights, brake lights, and turn indicators.

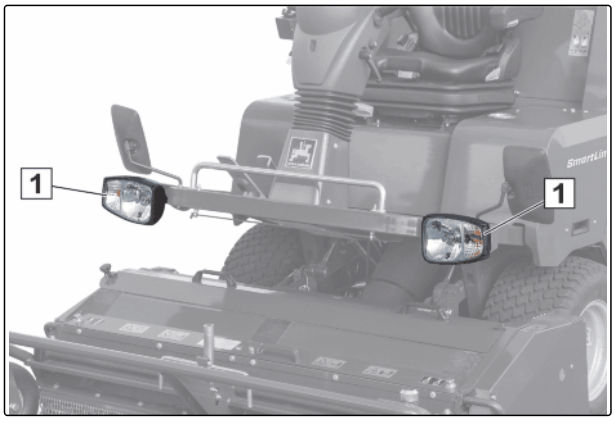
2 Licence plate lighting



CMS-I-00002274

Lighting for road travel, to the front without cab

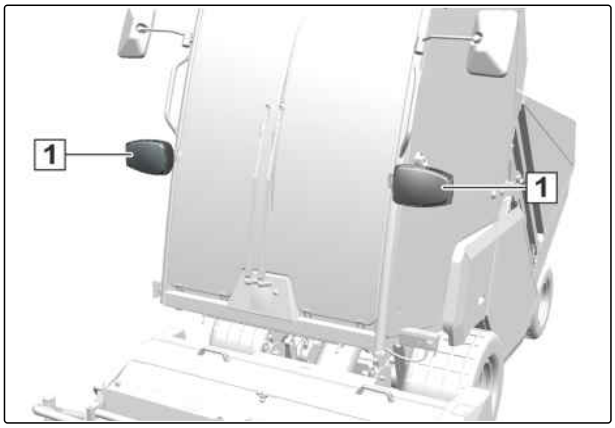
[1] Parking lights, dipped headlights, and turn indicators.



CMS-I-00002275

Lighting for road travel, to the front with cab

[1] Parking lights, dipped headlights, and turn indicators.

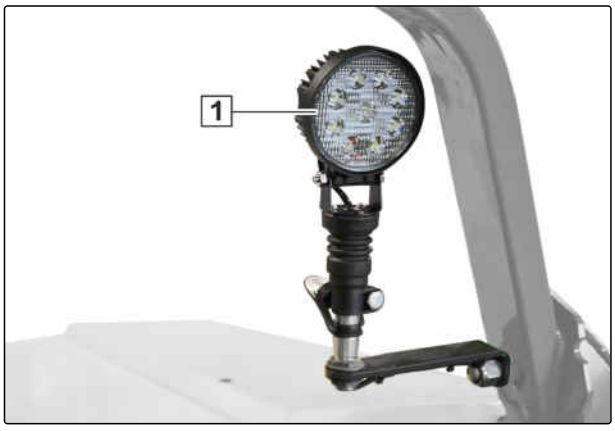


CMS-I-00004712

3.12 Work floodlights

CMS-T-00006175-A.1

The work floodlights [1] can be installed as an alternative to the warning beacon. The work floodlights optimally illuminate the working area.

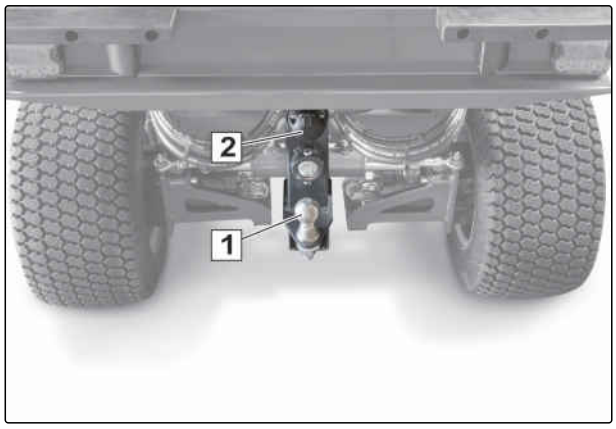


CMS-I-00004388

3.13 Trailer hitch

CMS-T-00002841-B.1

Trailers with a ball coupling can be attached to the trailer hitch [1]. The trailer is supplied with power from the socket [2].

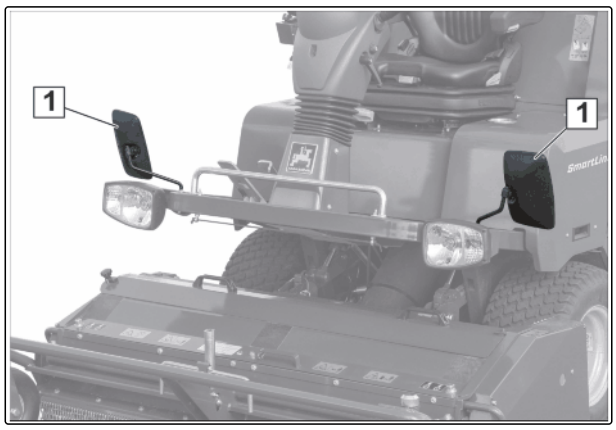


CMS-I-00002390

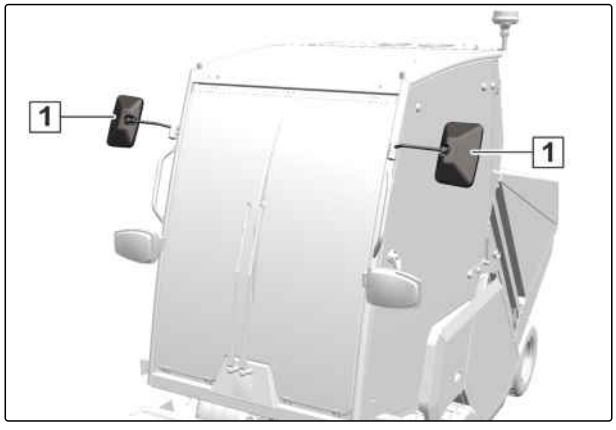
3.14 Exterior rearview mirror

CMS-T-00002437-B.1

The exterior rearview mirrors [1] are only available in conjunction with the lighting.



CMS-I-00002272



CMS-I-00004714

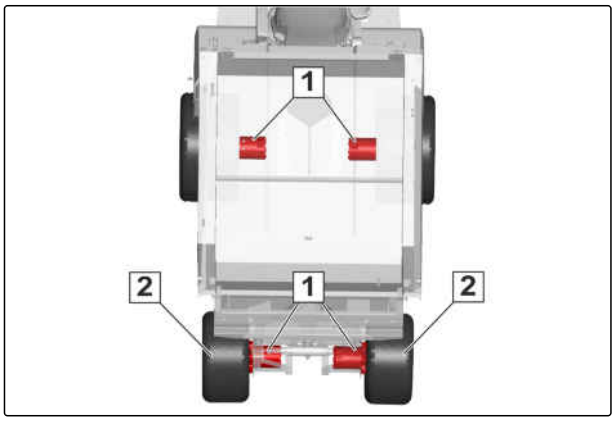
3.15 Drive

CMS-T-00002453-B.1

3.15.1 Four-wheel drive

CMS-T-00002447-B.1

All four wheel are driven by electro-hydraulically controlled hydraulic motors 1. The steered rear wheels 2 are only additionally driven if necessary. The four-wheel drive functions in forward gear and reverse gear.

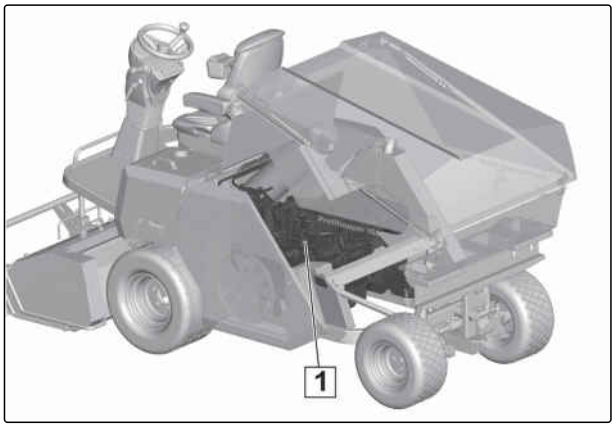


CMS-I-00002269

3.15.2 Diesel engine

CMS-T-00002448-A.1

The diesel engine 1 drives the cutting deck and the hydraulic pumps. The diesel engine is installed in the middle of the machine. Thanks to modern exhaust gas treatment with recirculation and diesel particle filters, no diesel exhaust fluid (DEF) is required.

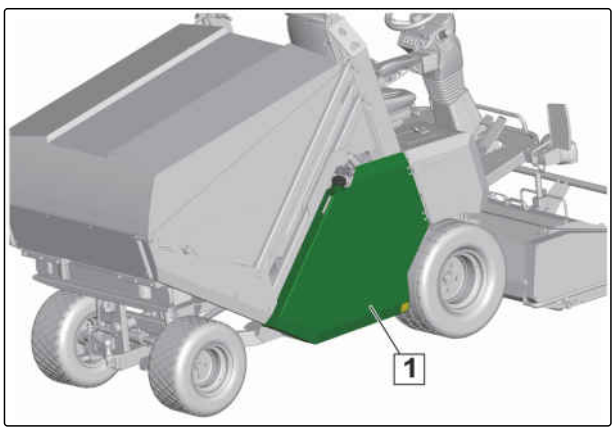


CMS-I-00002259

3.15.3 Fuel tank

CMS-T-00002449-A.1

The fuel tank 1 is located on the right side and has a volume of 50 litres.



CMS-I-00002260

3.16 Cutting deck

CMS-T-00002405-A.1

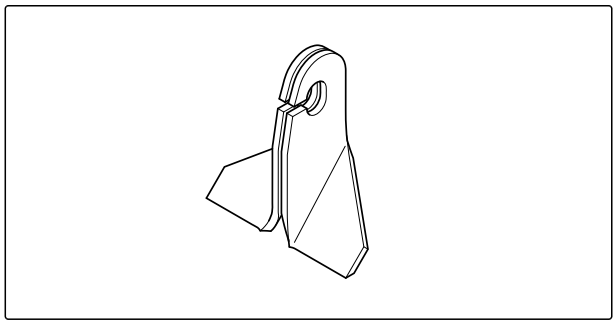
3.16.1 Blades

CMS-T-00001190-A.1

3.16.1.1 Flail blade, long H77

CMS-T-00002840-A.1

The long flail blade H77 is suitable for mowing and collecting under dry and wet conditions.

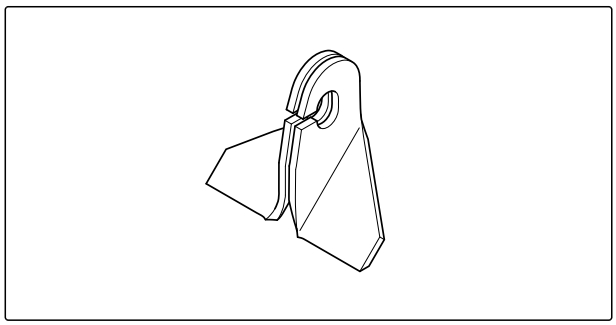


CMS-I-00000998

3.16.1.2 Flail blade, short H60

CMS-T-00001192-A.1

The short flail blade H60 is only used in combination with the scarifying blades. In this combination, the blades are suitable for scarifying and collecting under dry and wet conditions.

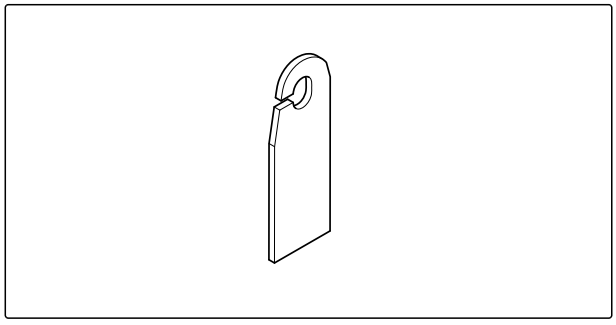


CMS-I-00000997

3.16.1.3 Scarifying blades

CMS-T-00001193-A.1

The scarifying blades are suitable for scarifying and collecting under dry conditions. The blades are generally used in combination with cutting blades or flail blades.



CMS-I-00001002

3.17 High tip emptying

CMS-T-00003081-B.1

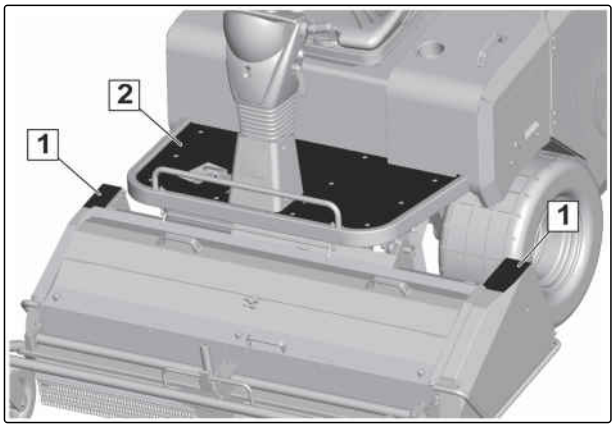
High tip emptying at up to 2.50 m enables rapid emptying on an HGV or trailer.

CMS-I-00002904

3.18 Steps and stepping areas

CMS-T-00002454-B.1

As a climbing aid to the driver's seat, there are anti-slip areas 1 on the cutting deck. Except for these areas, only the footwell area 2 can be walked on.



CMS-I-00002261

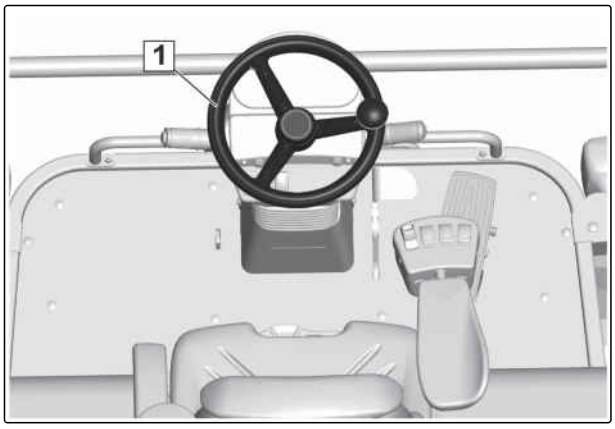
3.19 Control elements

CMS-T-00002439-D.1

3.19.1 Steering wheel

CMS-T-00002455-A.1

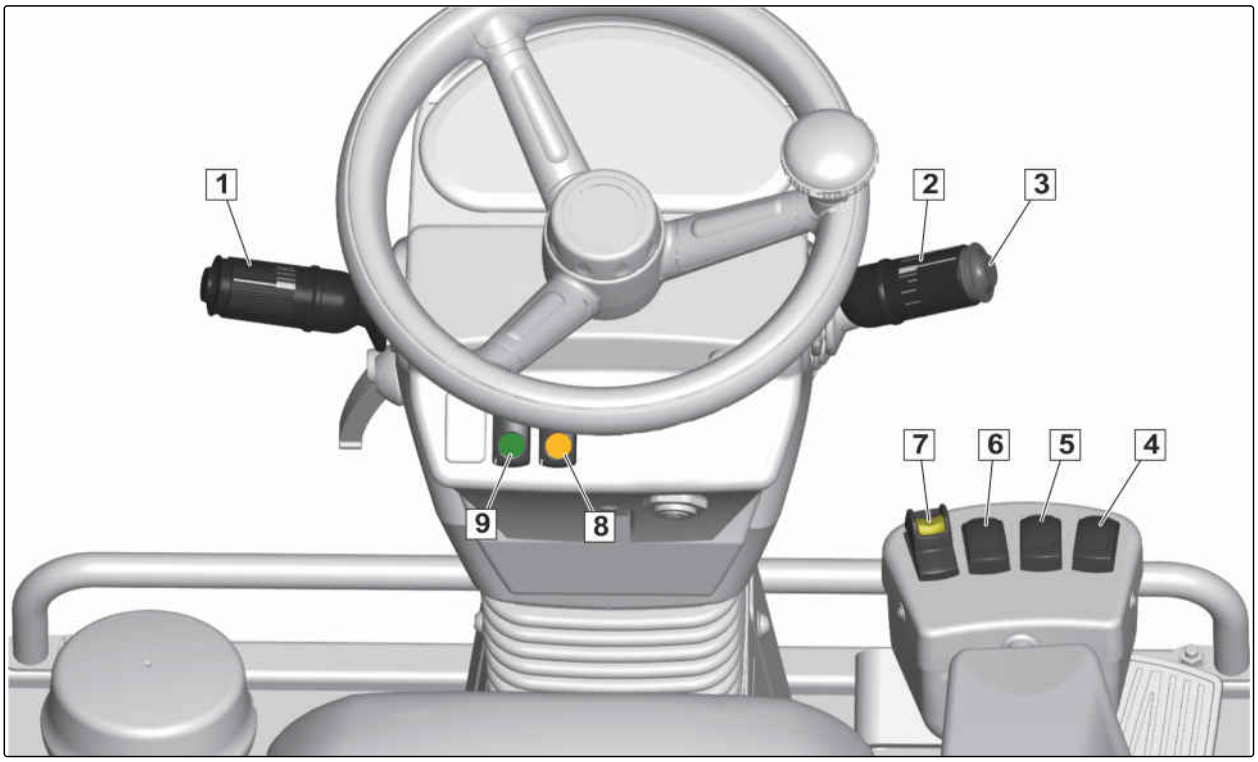
The machine is steered by the rear wheels. The steering wheel 1 with steering knob enable comfortable one-handed steering.



CMS-I-00002264

3.19.2 Operating levers and operating buttons

CMS-T-00002456-B.1



CMS-I-00002262

1 Selection lever for direction of travel

2 Operating lever for turn indicator and light

3 Operating button for the horn

4 Operating button for emptying the grass collector

5 Operating button for lifting and lowering the grass collector

6 Operating button for lifting and lowering the cutting deck

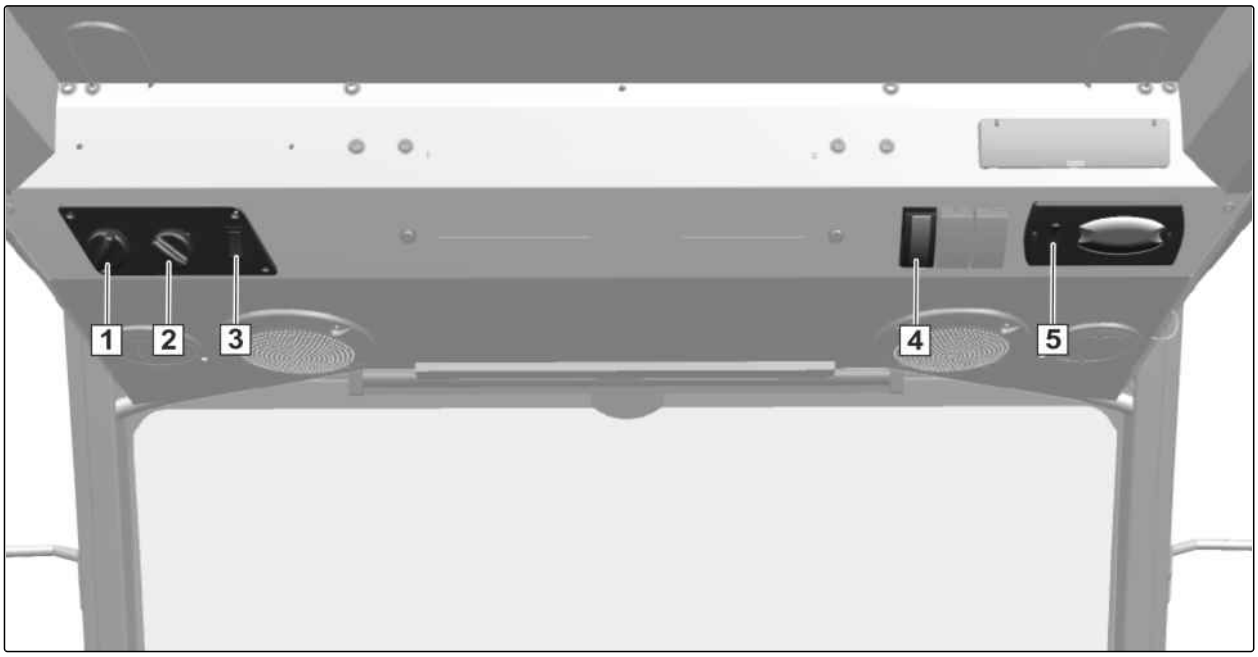
7 Operating button for switching the cutting deck on and off

8 Operating button for the warning beacon or work floodlights

9 Operating button for cruise control

3.19.3 Control elements in the cab

CMS-T-00006631-A.1



CMS-I-00004716

1 3-step switch for the air conditioning fan

2 Temperature regulator for the air conditioning system

3 Control button for the air conditioning system

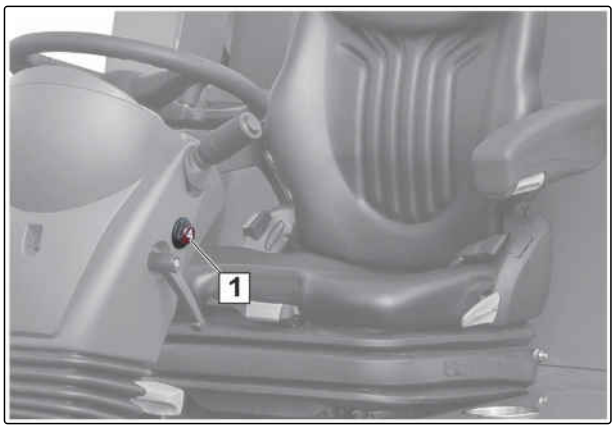
4 Control button for windscreen wipers and windscreen washer system

5 Control button for cab lighting

3.19.4 Hazard warning light

CMS-T-00002462-B.1

The operating button 1 for the hazard warning light is located on the left of the steering column. When the hazard warning light is switched on, the operating button flashes and both control lamps of the direction indicator on the dashboard. The operating button is only equipped on machines with lighting.



CMS-I-00002265

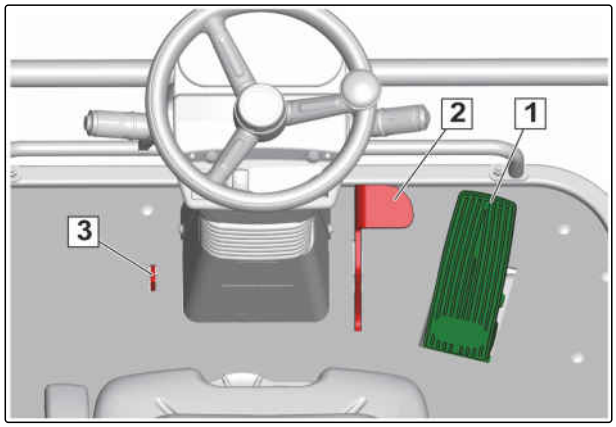
3.19.5 Accelerator pedal and brake

CMS-T-00002457-A.1

1 Accelerator pedal, gas pedal

2 Brake pedal

3 Brake pedal locking mechanism, parking brake



CMS-I-00002263

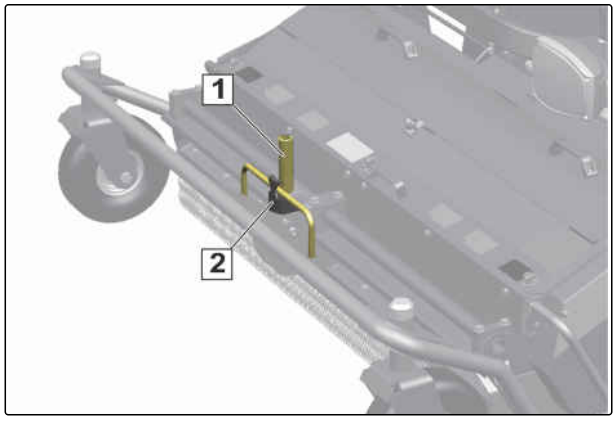
3.19.6 Crank

CMS-T-00002517-B.1

The crank 1 has the following functions:

- Adjusting the cutting height of the cutting deck.
- Open the protective cover.
- Remove blockages in the augers.
- Open and close the grass collector hood.

The crank is stored and fastened in the bracket 2 on the cutting deck.



CMS-I-00002311

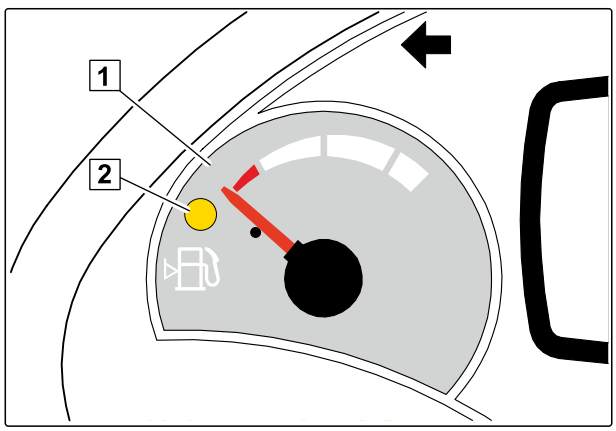
3.20 Dashboard

CMS-T-00002440-C.1

3.20.1 Fuel indicator

CMS-T-00002458-A.1

The fuel indicator 1 shows the current fill level of the fuel tank. If the warning lamp 2 lights up, the reserve of the fuel tank has been reached.

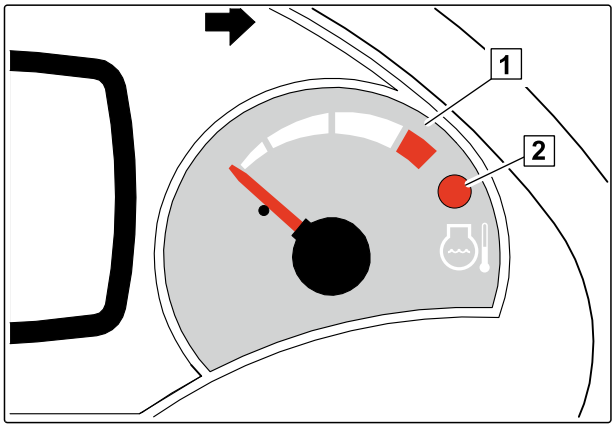


CMS-I-00002267

3.20.2 Engine coolant temperature display

CMS-T-00002461-A.1

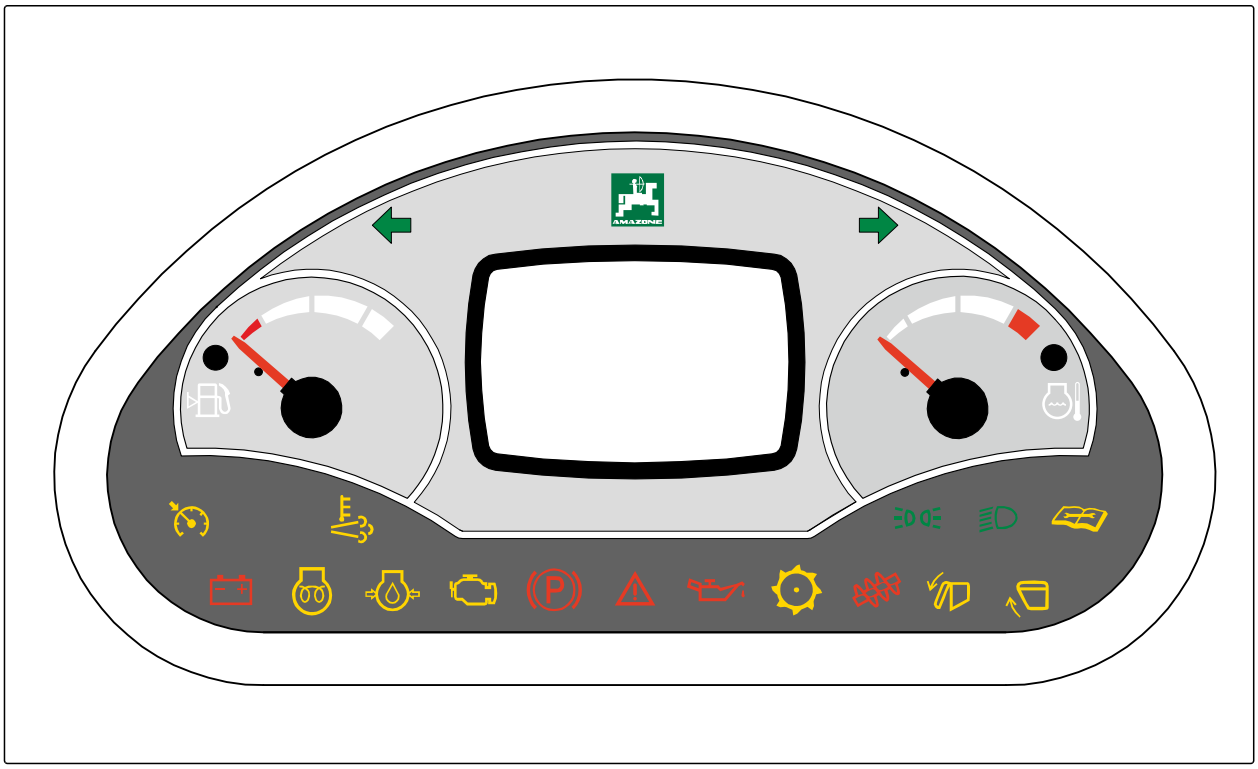
The engine coolant temperature display 1 shows the current temperature of the engine coolant. If the warning lamp 2 lights up, the temperature of the engine coolant is too high.



CMS-I-00002266

3.20.3 Control lamps and warning lamps

CMS-T-00002459-B.1



CMS-I-00002307

The control lamps and warning lamps indicate warnings, faults or active functions. Some control lamps and warning lamps light up when the ignition is switched on, and must be turned off when the engine is running or while driving.

The description of the warning lamps, and the possible remedies, can be found in the Faults section.

Symbol	Meaning	Function
	Control lamp for cruise control	Lights up when cruise control is switched on.
	Control lamp for exhaust temperature	Lights up when automatic regeneration of the particle filter is active with high exhaust temperature.
	Control lamp for preheating the diesel engine	Lights up when the diesel engine is preheating.
	Control lamp for engine oil pressure	Lights up when the engine oil pressure is too low.
	Warning lamp for engine fault	Lights up when there is an engine fault.
	Control lamp for rotor speed	Lights up when the rotor is switched on and being driven.
	Control lamp for open grass collector	Lights up when the grass collector is open.
	Control lamp for raised grass collector	Lights up when the grass collector is raised.
	Maintenance control lamp	Lights up when maintenance is due.
	Warning lamp for battery voltage	Lights up when the battery voltage is too low.
	Control lamp for parking brake	Lights up when the parking brake is active.
	Fault warning lamp	Lights up when there is a fault.
	Warning lamp for hydraulic oil level	Lights up when the hydraulic oil level is too low.
	Warning lamp for blockage on the rotor or augers	Lights up when the rotor or the augers are blocked.
	Control lamp for dipped headlights	Lights up when the dipped headlights are switched on.
	Control lamp for parking lights	Lights up when the parking lights are switched on.
	Control lamp for right turn indicator	Flashes when the right turn indicator is switched on.
	Control lamp for left turn indicator	Flashes when the left turn indicator is switched on.

3.20.4 Acoustic fill level indicator for the grass collector

CMS-T-00002463-C.1

The buzzer 1 sounds when the grass collector is full and needs to be emptied.

CMS-I-00002296

3.20.5 Info display

CMS-T-00003066-B.1

3.20.5.1 Normal mode

CMS-T-00002683-B.1

When the machine is being used, the normal mode is the standard display mode. It is possible to toggle between normal mode and job mode.

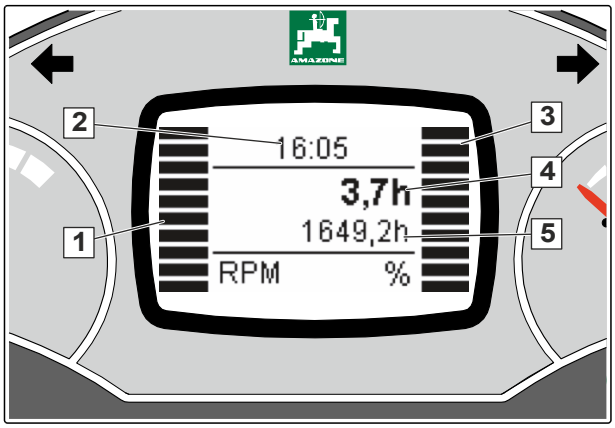
1 Current engine speed

2 Current time

3 Utilisation of the diesel engine in percent

4 Time display for the current assignment

5 Total operating hours counter



CMS-I-00002297

3.20.5.2 Job mode

CMS-T-00002684-B.1

When the machine is being used, the normal mode is the standard display mode. It is possible to toggle between normal mode and job mode.

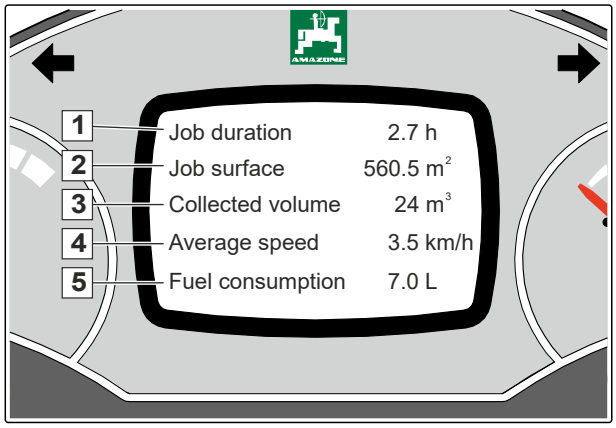
1 Duration of the current assignment

2 Total worked area for the current assignment

3 Collected quantity for the current assignment

4 Average speed for the current assignment

5 Fuel consumption for the current assignment



CMS-I-00002308

3.20.5.3 Message mode

CMS-T-00002685-B.1

If there is a fault on the machine, message mode is activated. The cause of the fault will be displayed on the Info display. The error message cannot be deleted. The error message disappears automatically as soon as the error is fixed.

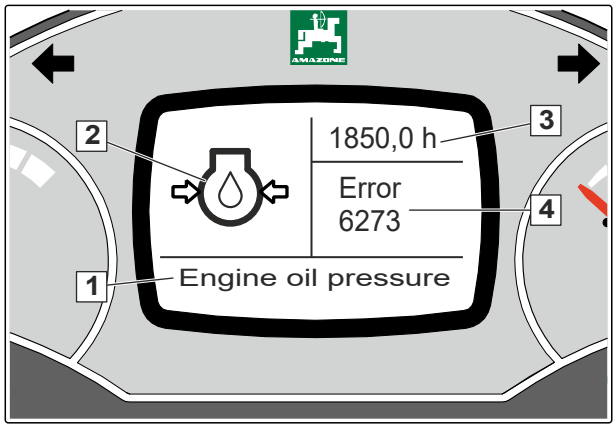
You can find more information on the individual faults in the Eliminating faults section.

1 Error message as text

2 Symbol for the error message

3 Counter reading at the time of the error message

4 Error code



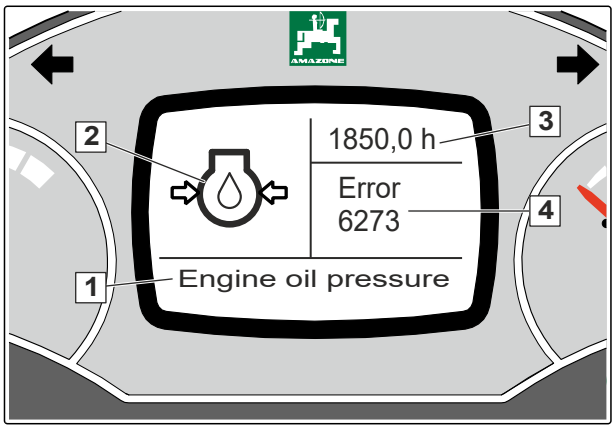
CMS-I-00002309

3.20.5.4 Maintenance mode

CMS-T-00002756-B.1

The information *"Perform maintenance"* appears at the following intervals:

- After the first 50 operating hours.
- Every additional 250 operating hours.



CMS-I-00002428

NOTE

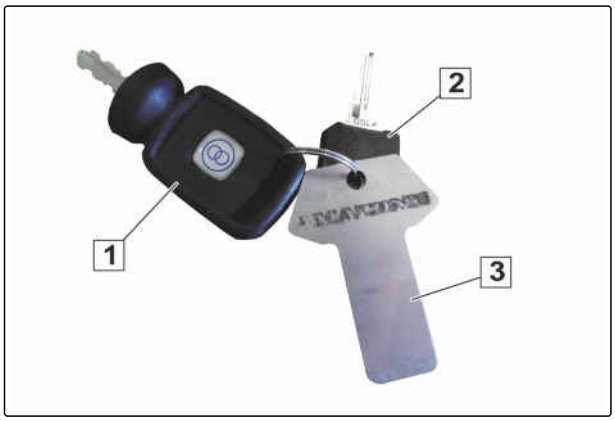
In addition, the control lamp lights up on the dashboard.

After finishing maintenance work, the maintenance interval can be reset.

3.21 Key

CMS-T-00002618-B.1

- Ignition key 1, to start and switch off the machine.
- Key 2, to open the seat carrier and the toolbox beside the driver's seat.
- Special key 3, to open the protective lid on the belt drive guard and the side cover in front of the radiator.



CMS-I-00002360

NOTE

Lost keys can be reordered from AMAZONE by indicating the vehicle ID no.

3.22 Threaded cartridge

CMS-T-00001776-D.1

The threaded cartridge contains the following items:

- Documents
- Aids

CMS-I-00002306

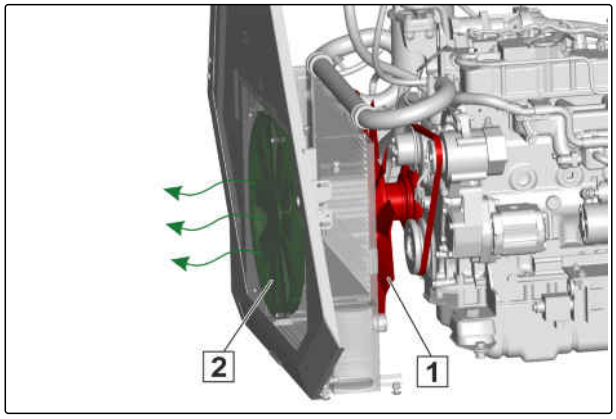
3.23 AMAZONE cooling system - Self-cleaning cooling air system

CMS-T-00002467-B.1

The system removes dust and plant residues from the radiator grille. Plant residues are produced particularly when mulching.

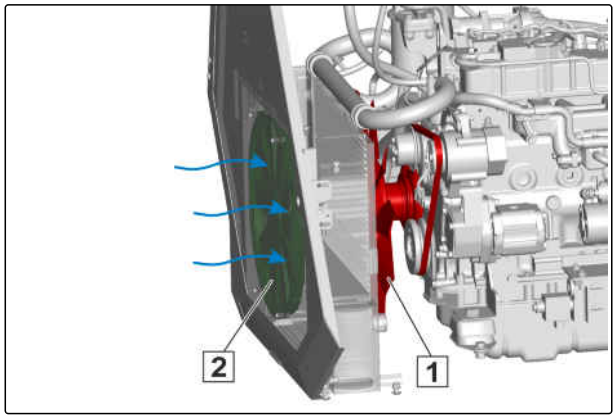
The system works automatically.

The air current of the main fan **1** is intermittently interrupted and the additional cleaning fan **2** reverses the air current. The air current removes plant residues and dust from the grille.



CMS-I-00002299

Afterwards, the cleaning fan **2** is switched off again and the main fan **1** is switched on. The air current can then optimally reach the radiator again.



CMS-I-00002298

Technical data 4

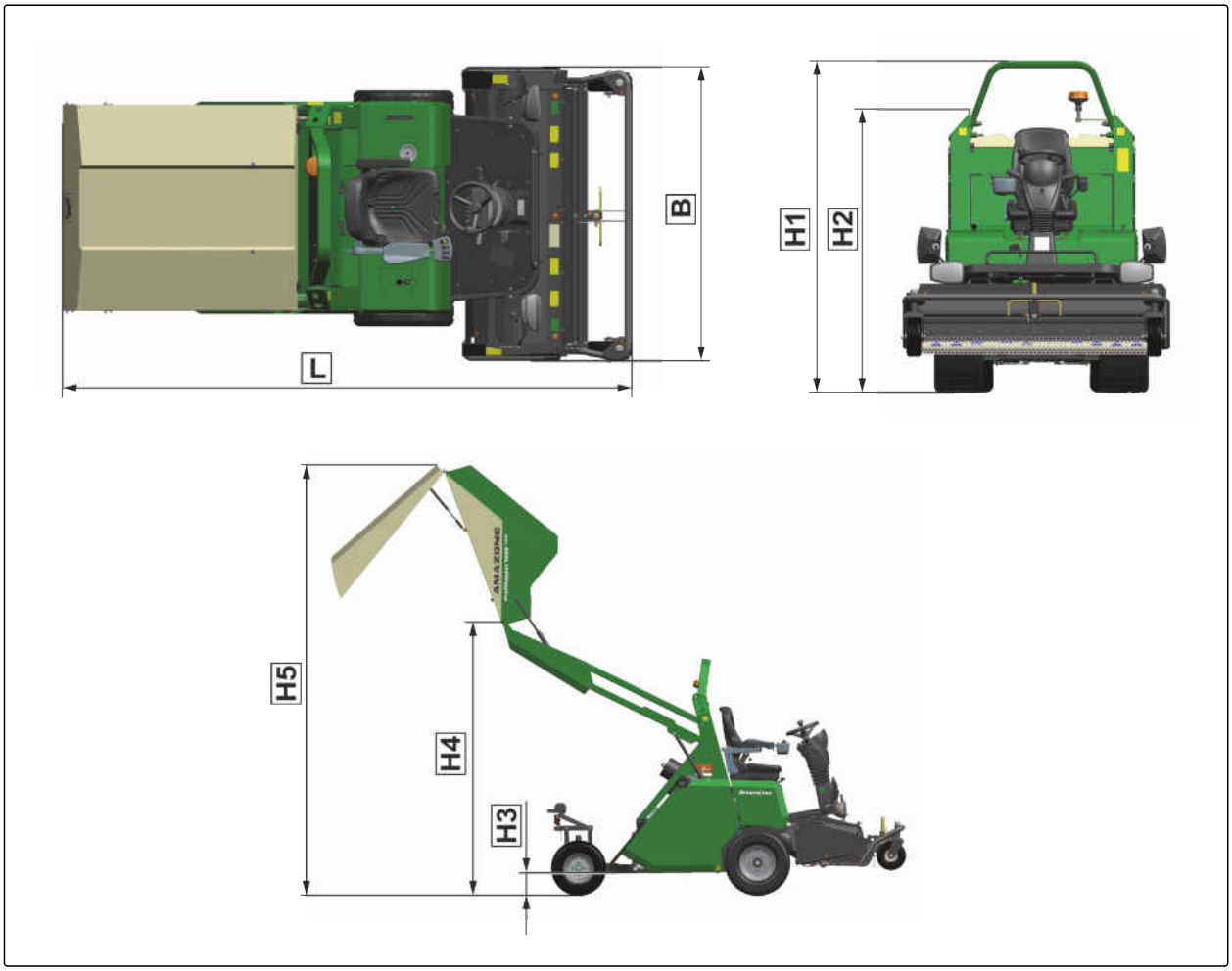
CMS-T-00003082-C.1

4.1 Dimensions

CMS-T-00006632-A.1

4.1.1 Dimensions without cab

CMS-T-00003084-C.1

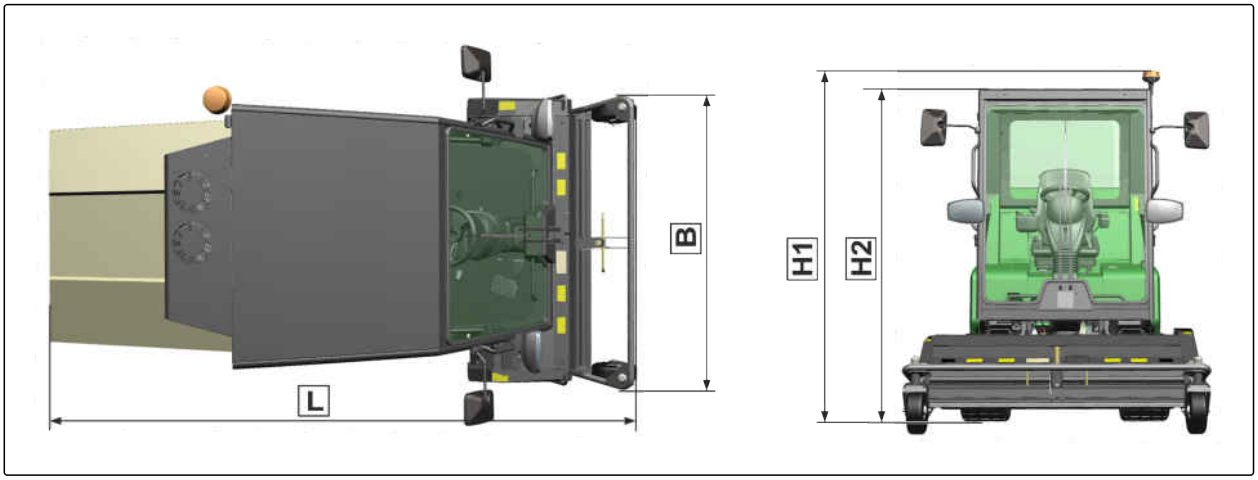


CMS-I-00002305

Designation	Designation	Profihopper 1500
L	Total length	3415 mm
H1	Total height	2185 mm
H2	Height	1868 mm
H3	Ground clearance	135 mm
H4	Height	2519 mm
H5	Height	2850 mm
B	Total width	1773 mm

4.1.2 Dimensions with cab

CMS-T-00006633-A.1



CMS-I-00004718

Designation	Designation	Profihopper 1500
L	Total length	3415 mm
H1	Total height	2467 mm
H2	Height	2347 mm
B	Total width	1773 mm

4.2 Permissible trailer load

CMS-T-00003089-B.1

Designation	Value
Maximum permissible trailer load	750 kg
Maximum drawbar load, trailer hitch	75 kg
Maximum permissible D value	6 kN

4.3 Engine

CMS-T-00003090-B.1

Engine type	Yanmar 4TNV 88 diesel engine
Number of cylinders	4
Cubic capacity	2190 ccm
Power	34 kW or 45.6 HP
Cooling	Water-cooled
Engine oil fill quantity	7.0 l
Engine oil viscosity	SAE 15W-40 API-CJ-4 ACEA E6

4.4 Speed

CMS-T-00003091-B.1

4.4.1 Forward speed

CMS-T-00003092-B.1

Direction of travel	Forward speed
Forwards	max. 20 km/h
Reverse	max. 8 km/h

4.4.2 Working speed

CMS-T-00003093-B.1

Direction of travel	Working speed
Forwards	max. 10 km/h

4.5 Tank volume

CMS-T-00003094-B.1

4.5.1 Fuel tank

CMS-T-00003095-B.1

Tank volume	50 l
Reserve	When the reserve lamp lights up on the fuel indicator, the remaining working time is 15 minutes.

4.5.2 Hydraulic oil tank

CMS-T-00003096-B.1

Tank volume	23 l
Oil designation	DIN 51524 HVLP 68

4.6 Grass collector volume

CMS-T-00003106-A.1

1100 l

4.7 Cutting deck

CMS-T-00003097-B.1

4.7.1 Cutting dimensions

CMS-T-00003098-B.1

Cutting height	max. 90 mm
Cutting width	1500 mm

4.7.2 Cutting tool

CMS-T-00003099-A.1

NOTE

The specifications of the tool quantity refers to 100% equipment with the same cutting tool.

	Flail blade, long H77, standard	Flail blade, short H60	Scarifying blade 2 mm and 3 mm	Combination of flail blades and scarifying blades
Quantity	44 pairs	44 pairs	44 units	44 pairs + 44 units

4.8 Tyres

CMS-T-00003104-B.1

4.8.1 Tyre dimensions

CMS-T-00003100-A.1

Tyres	Dimensions
Front tyres	24 x 12.00-12 6PR
	24 x 12.00-12 8PR
Rear tyres	20 x 10.00-10 6PR
Cutting deck support wheels	8 x 3.00-4 4PR

4.8.2 Tyre inflation pressure

CMS-T-00003105-B.1

Tyres	Pressure
Front tyres	1.5 bar
Rear tyres	1.5 bar
Cutting deck support wheels	1.5 bar

4.9 Noise development data

CMS-T-00003101-A.1

The workplace-related emission noise level is 88 dB(A), measured in operating condition at the ear of the tractor driver.

Value of the sound power level, according to Regulation 2000/14/EC: LwA = 105 dB(A)

4.10 Vibration measurement data

CMS-T-00003102-A.1

Designation	Value
Hand vibrations and arm vibrations measured according to DIN EN ISO 12096 and DIN EN ISO 5395-1	Left: 0.9 m/s² with an uncertainty figure of K = 0.17 Right: 0.85 m/s² with an uncertainty figure of K = 0.16
Whole-body vibrations, measured according to DIN EN ISO 12096 and DIN EN ISO 5395-1	0.81 m/s² with an uncertainty figure of K = 0.16

4.11 Drivable slope inclination

CMS-T-00003103-C.1

Across the slope		
On left in direction of travel	max. 26 %	
On right in direction of travel	max. 26 %	

Up the slope and down the slope		
Up the slope	max. 26 %	
Down the slope	max. 26 %	

Practical routines

5

CMS-T-00002855-D.1

5.1 Opening and closing the doors

CMS-T-00006634-A.1

5.1.1 Opening the doors

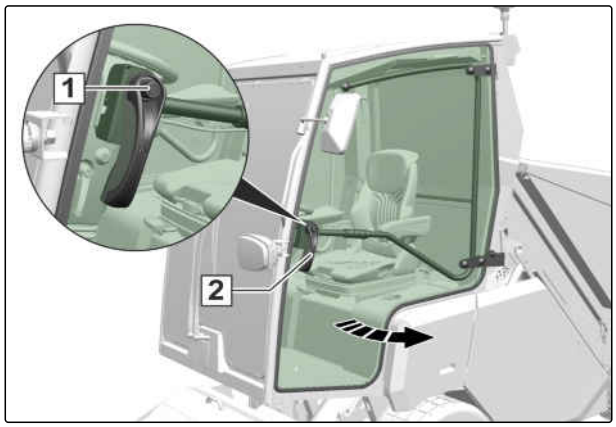
CMS-T-00006635-A.1

The following steps are the same for both doors.

1. *To open the door from the outside,*
   press the unlocking botton **1**.

2. Open the door with the handle **2**.

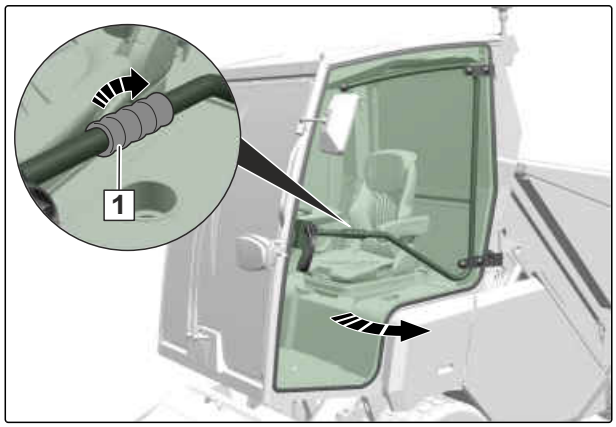
➡ The door is opened and held in the open position with support from the gas spring.



CMS-I-00004720

3. *To open the door from the inside,*
   turn the handle **1** outwards and open the door.

➡ The door is opened and held in the open position with support from the gas spring.



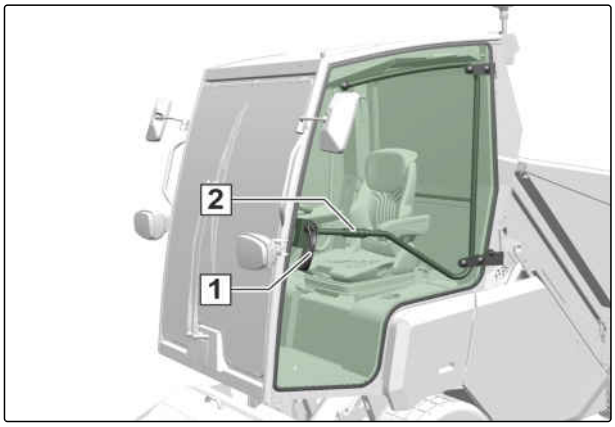
CMS-I-00004722

5.1.2 Closing the doors

CMS-T-00006636-A.1

1. *To close the door from the outside,*
   press the door on the handle **1** until the door lock engages.

2. *To close the door from the inside,*
   pull the door by the handle **2** until the door lock engages.



CMS-I-00004721

5.1.3 Opening and closing the doors for maintenance work

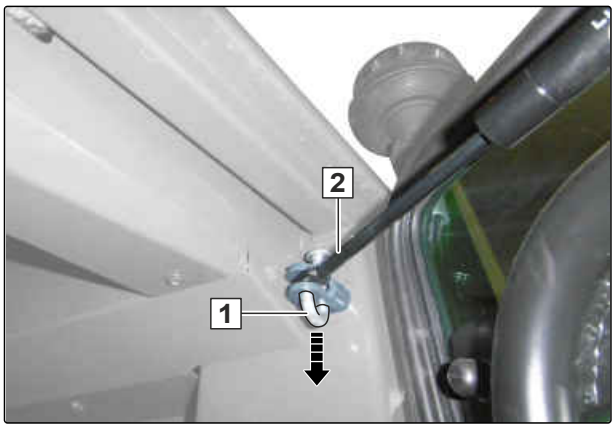
CMS-T-00006714-A.1

The following steps are the same for both doors.

1. Open the door up to the stop of the gas spring.

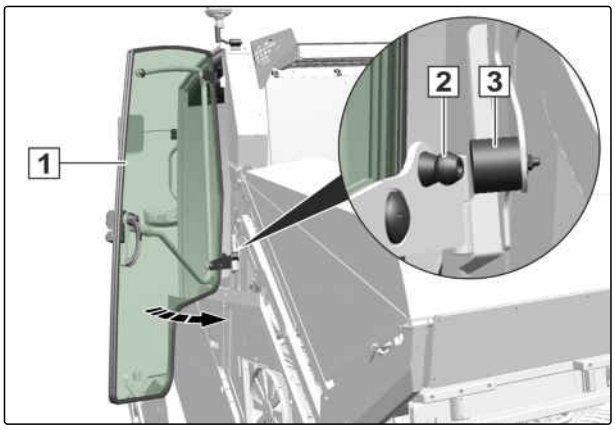
2. Pull down the unlocking mechanism **1**.

3. Unhook the gas spring **2**.



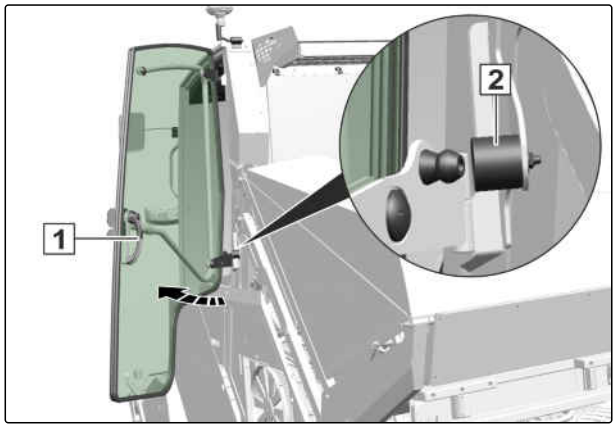
CMS-I-00004747

4. Open the door **1** all the way until the stud **2** is fixed in the stop buffer **3**.



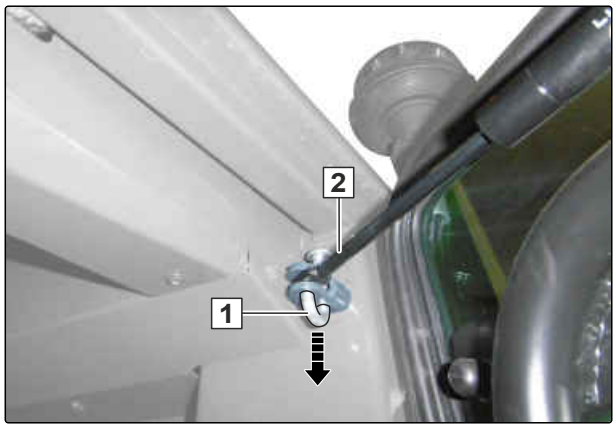
CMS-I-00004719

5. *To close the door,*
   pull the door by the handle [1] out of the stop buffer [2].



CMS-I-00004723

6. Pull down the unlocking mechanism [1].
7. Hook on the gas spring [2] and secure with the unlocking mechanism.
8. Close the door until the door lock engages.



CMS-I-00004747

5.2 Opening and closing the grass collector hood

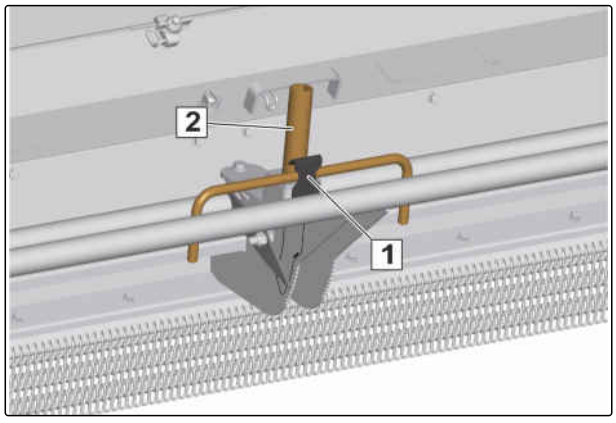
CMS-T-00004125-A.1

5.2.1 Opening the grass collector hood

CMS-T-00004126-A.1

The grass collector hood can be opened manually to empty the grass collector manually when it is overfilled.

1. Pull the safety hook [1] to the front.
2. Take out the crank [2].

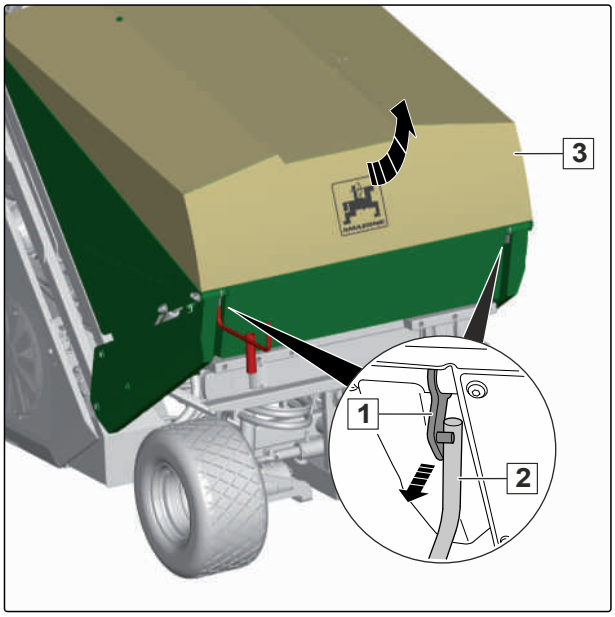


CMS-I-00002314

3. *To unlock the grass collector hood,*
pull the hooks 1 on the right and left to the rear with the crank 2 up to the stop.

4. Swivel the grass collector hood 3 upwards using the gas springs.

➡ The gas springs hold the hood in the open position.



CMS-I-00003048

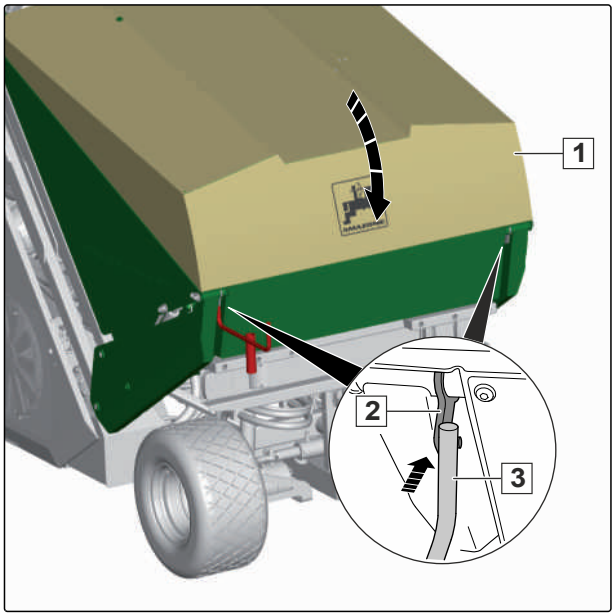
5.2.2 Closing the grass collector hood

CMS-T-00004127-A.1

1. Close the grass collector hood 1 by hand.

2. *To lock the grass collector hood,*
press the hooks 2 on the right and left forwards with the crank 3.

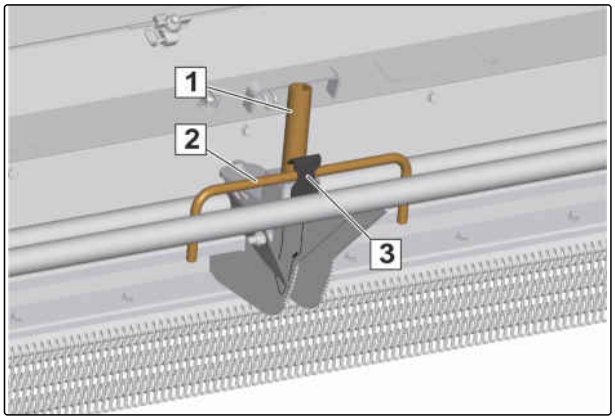
3. Check that the hood is properly locked.



CMS-I-00003049

4. Push the crank 1 down into the bracket using the handle 2 until the safety clip 3 engages.

5. Check that the crank is properly locked.



CMS-I-00002315

5.3 Opening and closing the seat carrier

CMS-T-00002856-C.1

5.3.1 Opening the seat carrier

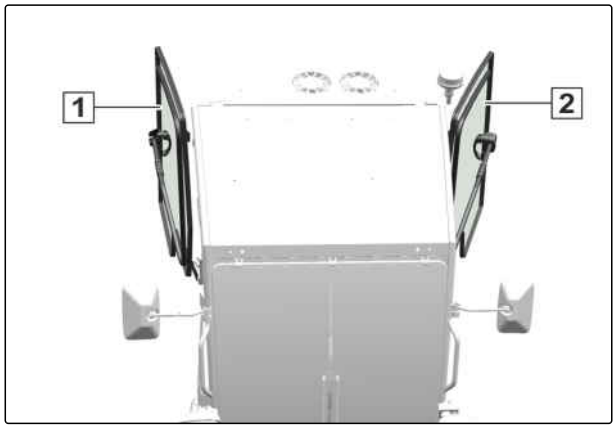
CMS-T-00002853-C.1

Through the seat carrier, the following components can be accessed:

- Vehicle battery
- Diesel fuel pre-filter with water separator
- Cutting deck transmission V-belt
- Maintenance flap for access to the coolant tank
- Threaded cartridge with documents and aids under the seat carrier.
- Wiper water container

1. *If the machine has a cab,*
   open both doors 1 and 2 up to the maintenance position.

2. Perform the following steps in the same way for both doors.

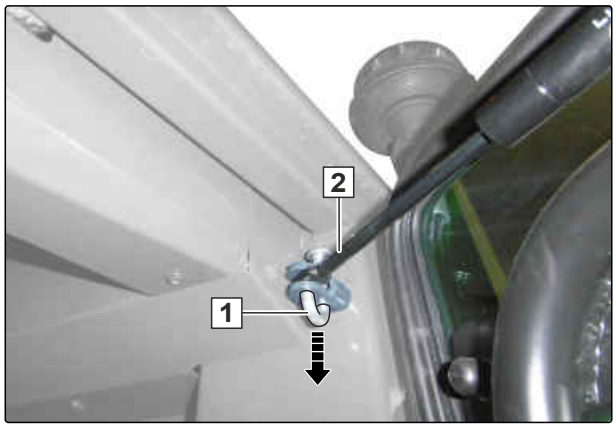


CMS-I-00004725

3. Open the door up to the stop of the gas spring.

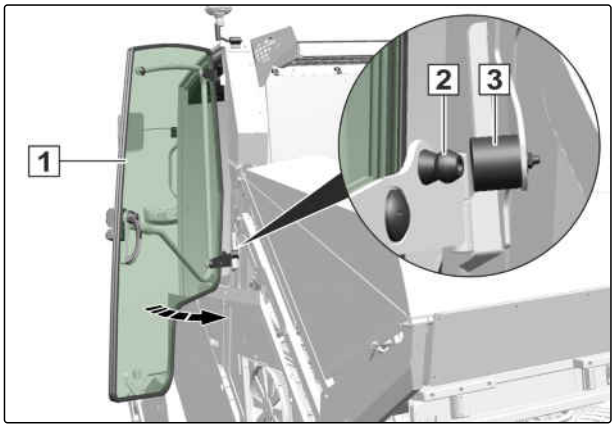
4. Pull down the unlocking mechanism 1.

5. Unhook the gas spring 2.



CMS-I-00004747

6. Open the door [1] all the way until the stud [2] is fixed in the stop buffer [3].

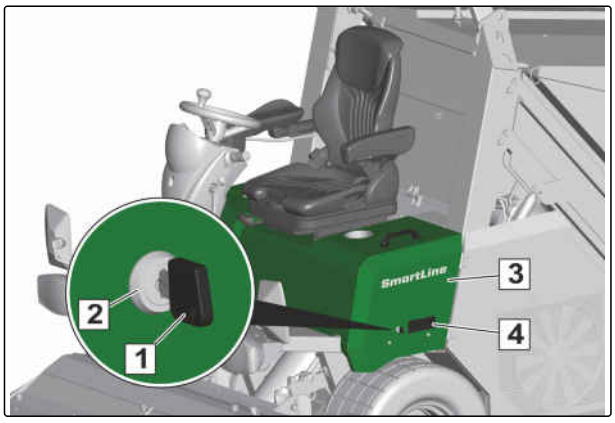


CMS-I-00004719

WARNING

Risk of injury due to defective gas springs

- *If the seat carrier is open,* check the hold of the seat carrier.
- Support the seat carrier only using the gas spring.
- Replace defective gas springs immediately.



CMS-I-00002356

7. Insert the key [1] in the lock [2].

8. *To unlock the seat carrier,* turn the key to the left.

9. Swivel the seat carrier [3] up using the handle [4] with help of the gas spring.

➡ The gas spring and the weight of the seat carrier keep the seat carrier in the open position.

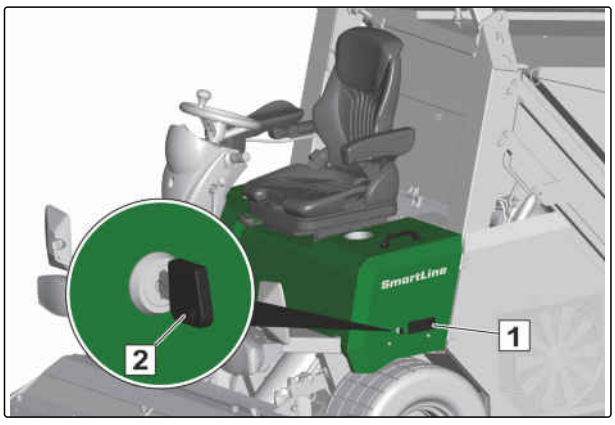
5.3.2 Closing the seat carrier

CMS-T-00002854-B.1

1. *To close the seat carrier,* pull the seat carrier down using the handle [1] and allow the locking mechanism to engage.

2. Pull out the key [2].

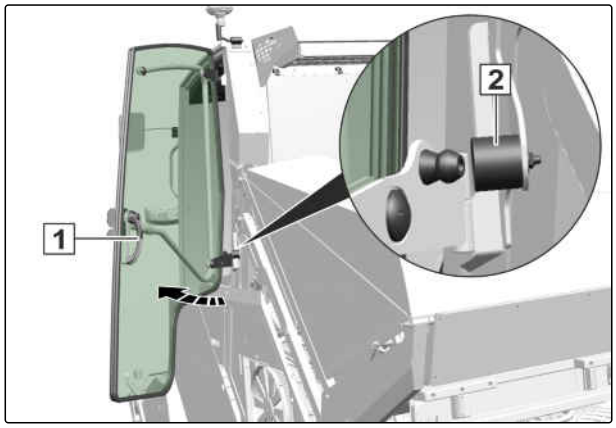
3. Check that the seat carrier is properly locked.



CMS-I-00002444

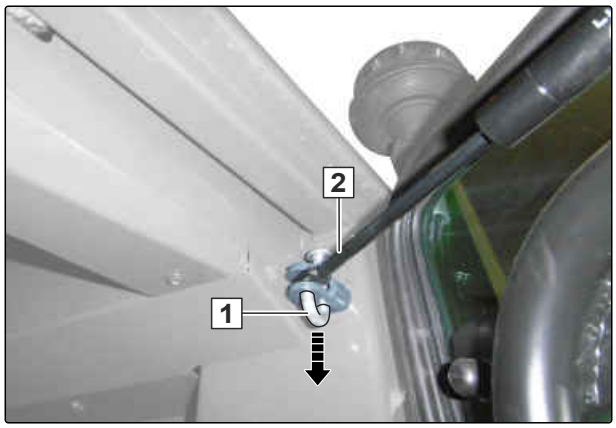
If the machine has a cab, perform the following steps in the same way for both doors.

4. pull the door by the handle [1] out of the stop buffer [2].



CMS-I-00004723

5. Pull down the unlocking mechanism [1].
6. Hook on the gas spring [2] and secure with the unlocking mechanism.
7. Close the door until the door lock engages.



CMS-I-00004747

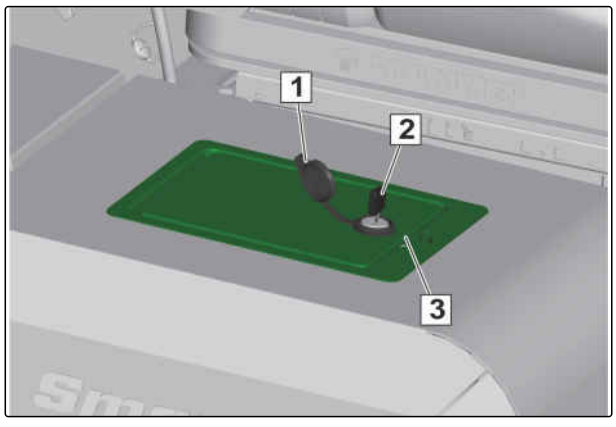
5.4 Opening the toolbox

CMS-T-00002621-A.1

The following objects can be stored in the toolbox:

- Spare blades
- Tools
- Cleaning cloths
- Gloves
- Objects of similar size

1. Open the protective cap [1].
2. Using the key [2], unlock the toolbox [3].
3. Open the toolbox [3] by hand in the area of the hollow.

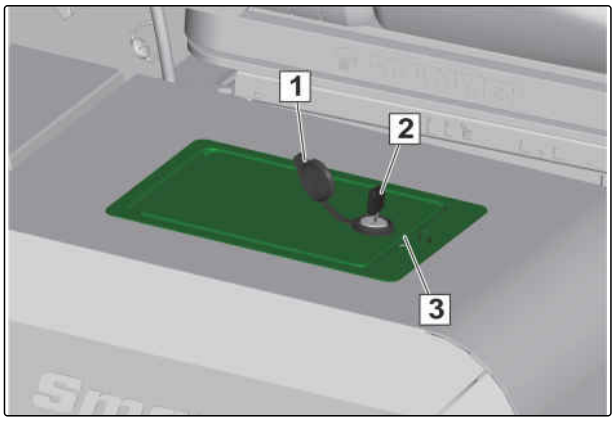


CMS-I-00002359

5.5 Closing the toolbox

CMS-T-00002948-A.1

1. Close the toolbox.
2. Lock the toolbox using the key 2.
3. Pull out the key.
4. Close the protective cap 1.
5. Check that the toolbox 3 is properly locked.



CMS-I-00002359

5.6 Opening and closing the engine cover

CMS-T-00002857-C.1

5.6.1 Opening the engine cover

CMS-T-00002622-C.1

WARNING

Risk of tipping when the grass collector is raised

- ▶ Only raise the grass collector on stable and level ground.
- ▶ Never raise the grass collector on slopes or inclines.

CAUTION

Risk of burn injuries due to hot surfaces on the engine and exhaust system

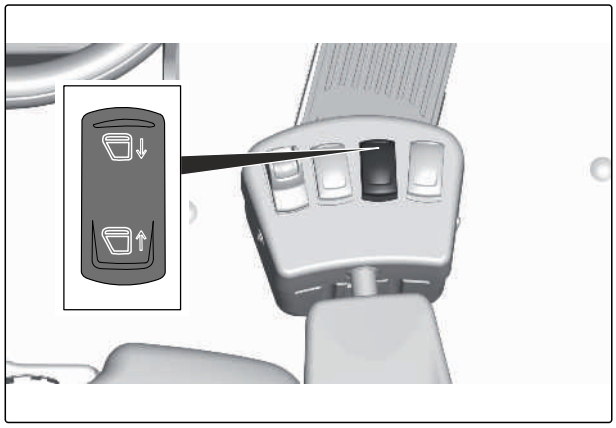
- ▶ *When the engine and exhaust system are hot,*
  keep the engine cover closed.

Through the engine cover, the following components can be accessed:

- Diesel engine
- Engine oil filling opening
- Hydraulic distributor block
- Alternator
- Diesel particle filter and exhaust gas system

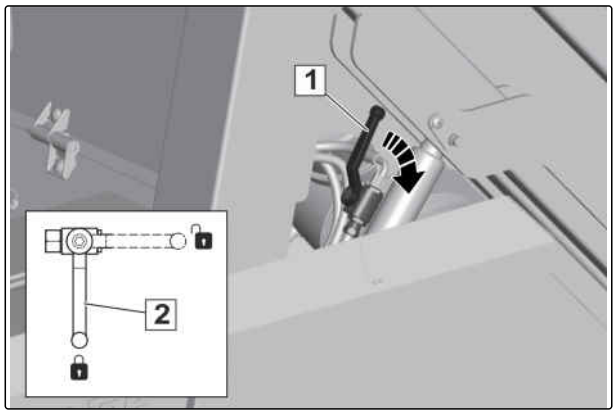
1. Bring the machine to a standstill.
2. Completely raise the grass collector by pressing the button.

➡ The control lamp lights up.



CMS-I-00002380

3. *To secure the grass collector against uncontrolled lowering,*
   turn the ball valve [1] on the left and right side to position [2].
4. Switch off the engine.
5. Apply the parking brake.

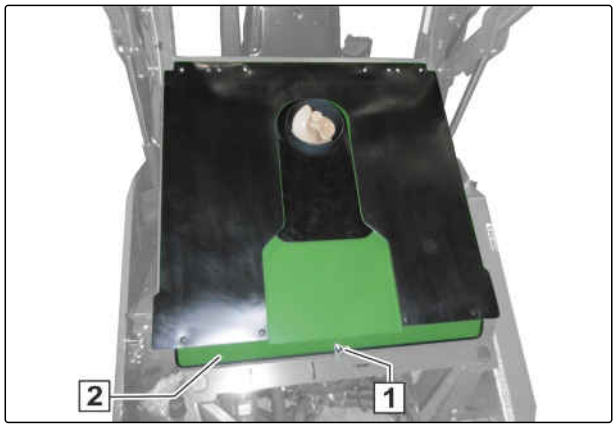


CMS-I-00002350

WARNING

Risk of injury due to defective gas springs

- *When the motor cover is open,* check the hold of the motor cover.
- Support the motor cover only using the gas spring.
- Replace defective gas springs immediately.



CMS-I-00002351

6. Turn the locking mechanism [1] to the left
7. Swivel engine cover [2] up with help of the gas spring.

➡ The gas spring holds the engine cover in the open position.

5.6.2 Closing the engine cover

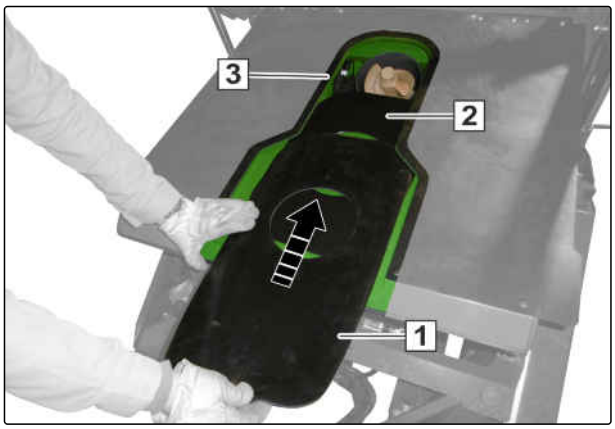
CMS-T-00002858-C.1

CAUTION

Fire hazard due to grass in the engine compartment

- ▶ Make sure that the rubber seal with the underlying plastic rubber holder are correctly positioned.

1. When closing the engine cover, make sure that the rubber seal [1] with the underlying plastic rubber holder [2] is correctly positioned in the guide [3] of the engine cover.
2. Push the rubber seal with the underlying plastic rubber holder all the way up in the guide.

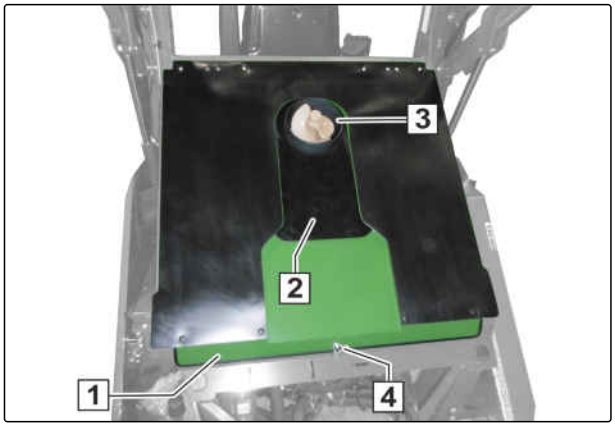


CMS-I-00004451

3. Swivel the engine cover [1] completely down. In doing so, guide the rubber seal [2] with the underlying plastic rubber holder over the longitudinal auger [3].
4. Turn the locking mechanism [4] to the right.

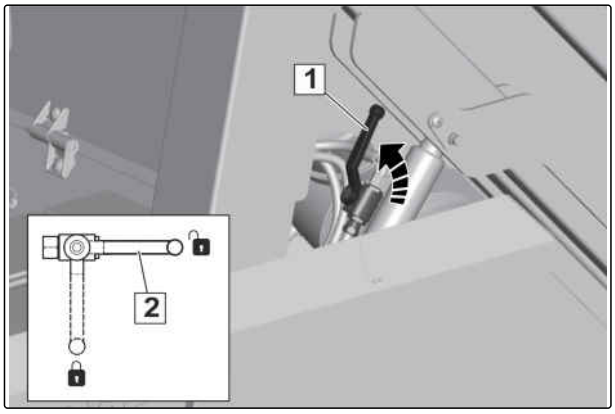
➡ The engine cover is locked.

5. Check that the engine cover is securely locked.
6. Check that the rubber seal is correctly positioned.



CMS-I-00004389

7. *To release the locking mechanism of the grass collector,*
   turn the ball valve [1] on the left and right side to position [2].



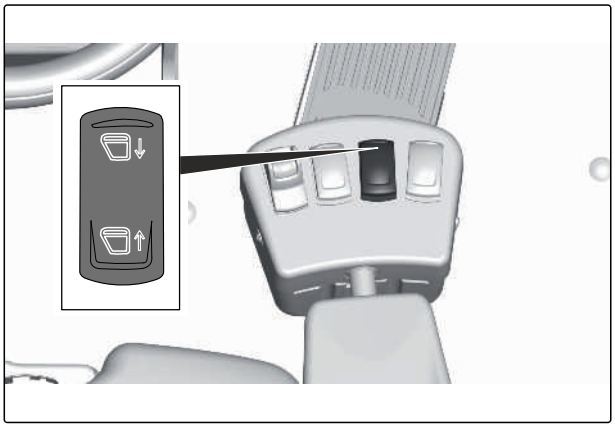
CMS-I-00002349

WARNING

Risk of crushing when lowering the grass collector

Serious injuries or even death are possible.

- ▶ Only lower the grass collector when nobody is standing in the danger area.
- ▶ While lowering, do not put any limbs in the bracket for the grass collector.



CMS-I-00002379

8. Completely lower the grass collector by pressing the button.

➡ The control lamp lights up until the grass collector is completely lowered.

5.7 Opening and closing the rotor protective cover

CMS-T-00002859-C.1

5.7.1 Opening the rotor protective cover

CMS-T-00002625-C.1

Through the rotor protective cover, the following components can be accessed:

- Rotor
- Cutting blades and blade mounts
- Cross auger
- Installation option for mulch flap

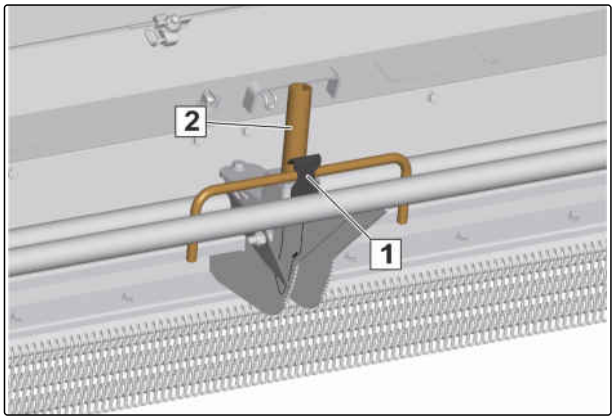
WARNING

Rotor still running

Risk of drawing in and cutting injuries

- ▶ *As long as the rotor and cutting tools are moving,*
  keep the rotor protective cover closed.

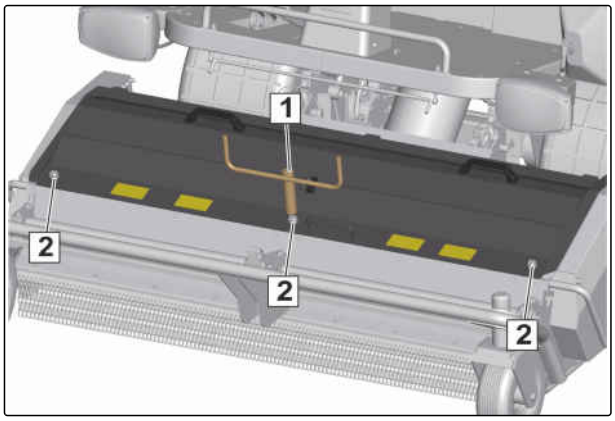
1. Completely lower the cutting deck.
2. Pull the safety hook [1] to the front.
3. Take out the crank [2].



CMS-I-00002314

4. Put the crank [1] on the three locking mechanisms [2].
5. Turn the crank by 90° to the left.

➡ The locking mechanisms are open.



CMS-I-00002353

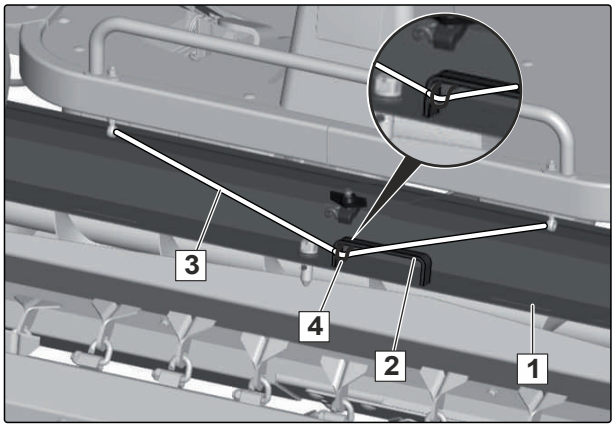
6. Open the rotor protective cover [1] using the handle [2].

CAUTION Risk of crushing due to incorrectly secured rotor protective cover

- ▶ *If the rope is damaged,* replace the rope immediately.
- ▶ Only use the rope to secure the rotor protective cover.

7. Hook the rope [3] onto the hook [4].

➡ The rotor protective cover is locked when in the open position.

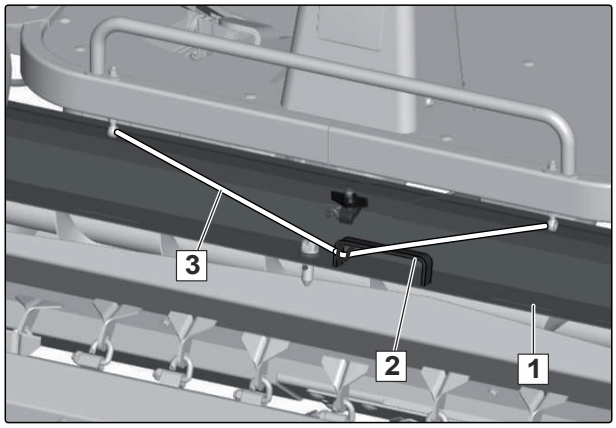


CMS-I-00002352

5.7.2 Closing the rotor protective cover

CMS-T-00002860-C.1

1. Hold the rotor protective cover [1] by the handle [2].
2. Unhook the rope [3].
3. Close the rotor protective cover.

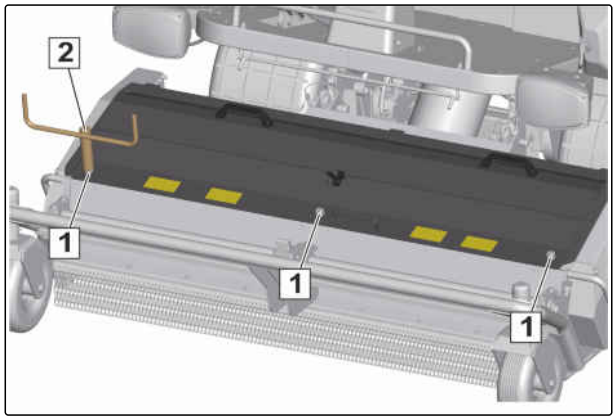


CMS-I-00002354

4. Turn the locking mechanisms [1] with the crank [2] by 90° to the right.

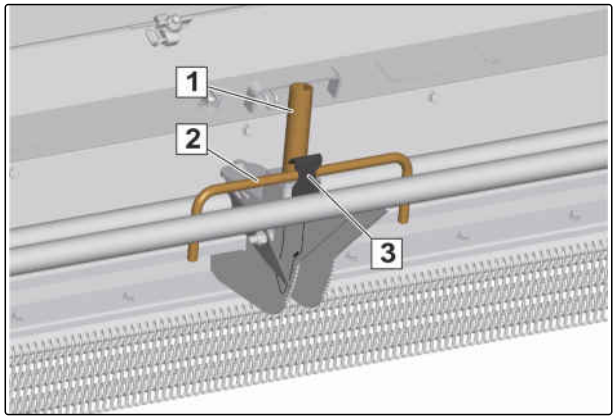
➡ The rotor protective cover is locked.

5. Check that the rotor protective cover is properly locked.



CMS-I-00002355

6. Push the crank [1] down into the bracket using the handle [2] until the safety clip [3] engages.
7. Check that the crank is properly locked.



CMS-I-00002315

5.8 Opening and closing the radiator cover

CMS-T-00002861-B.1

5.8.1 Opening the radiator cover

CMS-T-00002623-B.1

Through the radiator cover, the following components can be accessed:

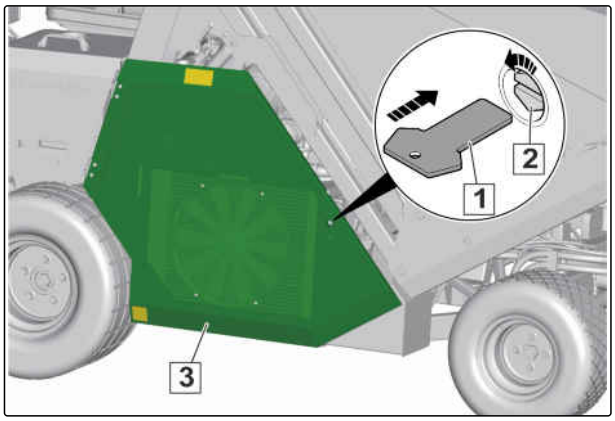
- Engine radiator
- Oil cooler
- Air filter
- Engine oil dipstick
- Hydraulic oil tank
- AMAZONE cooling system fan

1. Insert the special key [1] in the lock [2].
2. Turn the special key to the left.

➡ The radiator cover is unlocked.

3. Open the radiator cover [3] by hand with help of the gas spring.

➡ The gas spring holds the radiator cover in the open position.



CMS-I-00002348

5.8.2 Closing the radiator cover

CMS-T-00002862-A.1

1. Close the radiator cover by hand.
2. Press the radiator cover into the locking mechanism.

➡ When the locking mechanism engages audibly, the radiator cover is locked.

3. Check that the cover is properly locked.

5.9 Opening and closing the electrical system maintenance flap

CMS-T-00002863-C.1

5.9.1 Opening the electrical system maintenance flap

CMS-T-00002624-C.1

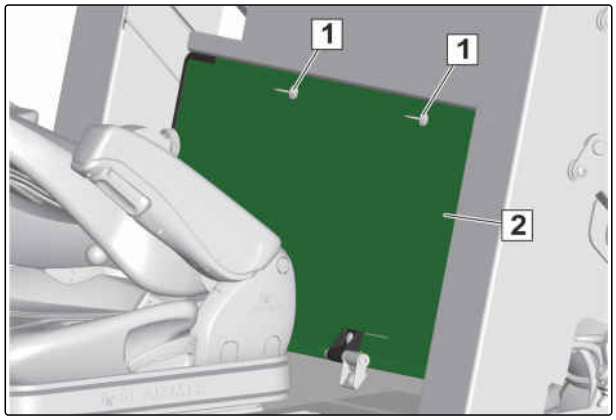
Through the electrical system maintenance flap, the following components can be accessed:

- Fuse box and relays
- Machine computer
- Diagnosis plug for workshop work

1. *If the machine has a cab,*
   then open the door and fasten in an open position.
2. Fold the driver's seat backrest to the front.
3. Turn the locking mechanism [1] to the left.

➡ The locking mechanisms are open and hang loosely in the hole.

4. Fold the electrical system maintenance flap [2] to the front on the driver's seat.



CMS-I-00002358

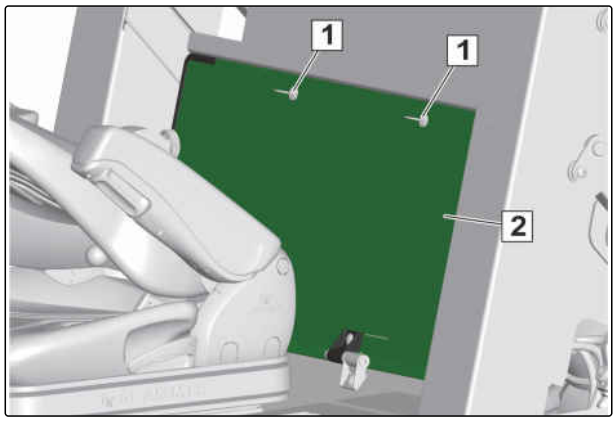
5.9.2 Closing the electrical system maintenance flap

CMS-T-00002864-C.1

1. Fold the electrical system maintenance flap [2] to the rear.
2. Turn the locking mechanism [1] to the right.

➡ The locking mechanisms perceptibly grip into the counter piece.

3. Check that the electrical system maintenance flap is properly locked and firmly seated.
4. Fold the driver's seat backrest into its original position.



CMS-I-00002358

Preparing the machine 6

CMS-T-00003056-C.1

6.1 Adjusting the standard driver's seat

CMS-T-00002533-B.1

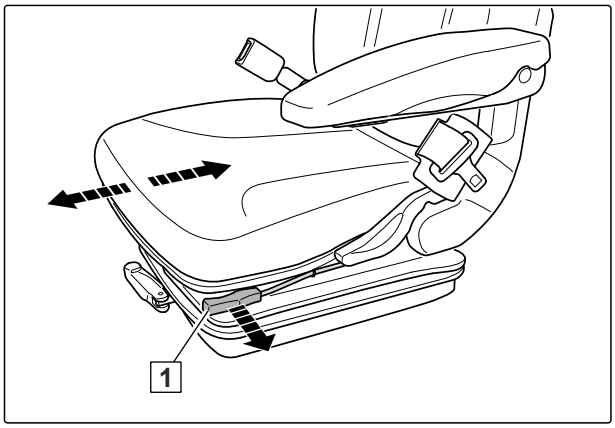
6.1.1 Selecting the longitudinal setting

CMS-T-00002552-B.1

1. Press and hold the lever 1 outwards.
2. Push the seat into the desired position.
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The seat is locked in the set position.

4. Check that the seat is firmly locked.



CMS-I-00002341

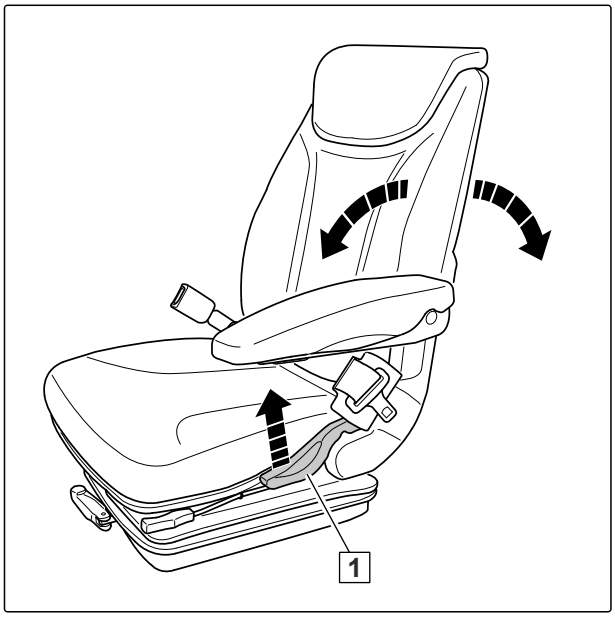
6.1.2 Adjusting the backrest

CMS-T-00002554-B.1

1. Pull the lever 1 up and hold it.
2. Move the backrest to the desired position
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The backrest is locked in the desired position.

4. *To fold the backrest completely to the front,* Fold up the armrests.
5. Pull on the lever and hold it.
6. Fold the backrest completely to the front.



CMS-I-00002342

6.1.3 Adjusting the seat suspension

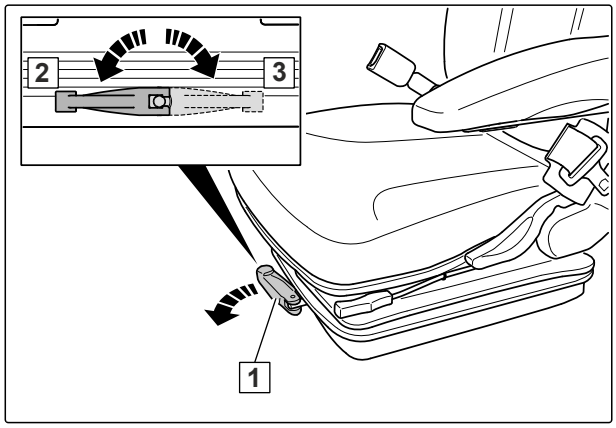
CMS-T-00002553-B.1

The suspension of the standard driver's seat can be set to soft or hard.

1. Swivel the lever [1] to the front
2. *To set the seat suspension to soft,*
   swivel the lever to the right

   or

   To set the seat suspension to hard,
   swivel the lever to the left.
3. Swivel the lever back towards the seat.



CMS-I-00002343

6.1.4 Adjusting the armrests

CMS-T-00002548-B.1

The slant of the armrests can be adjusted using the hand wheel [1].

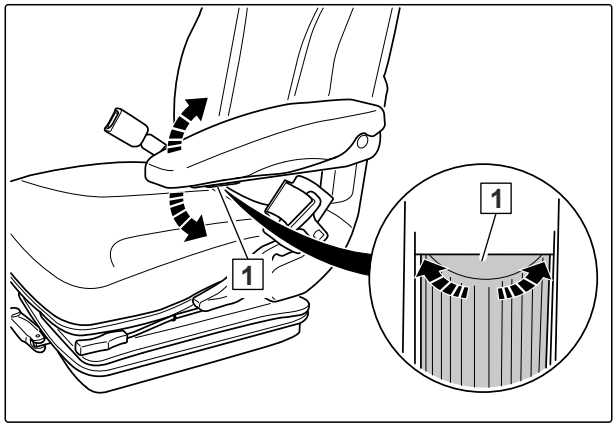
- *To raise the armrest*
  turn the hand wheel outwards

  or

  To lower the armrest
  turn the hand wheel inwards.

NOTE

When the armrest is folded down, it stops at the previously set slanted position.

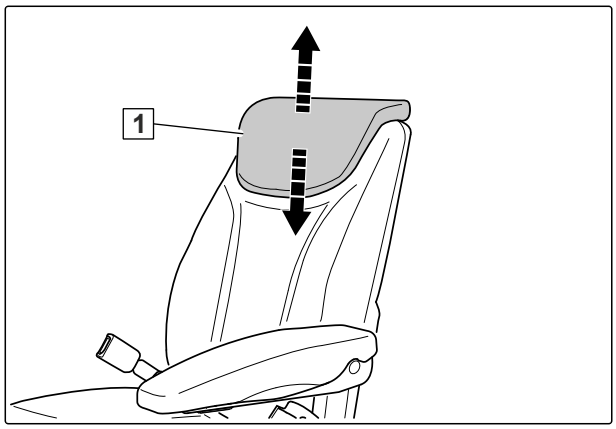


CMS-I-00002339

6.1.5 Adjusting the headrest

CMS-T-00002586-B.1

- *To adjust the height of the headrest* [1],
  pull out or push in the headrest over the perceptible increments.
- *To remove the headrest,*
  Pull the headrest out with a jerk beyond the top end stop.



CMS-I-00002340

6.2 Adjusting the Deluxe driver's seat

CMS-T-00002551-B.1

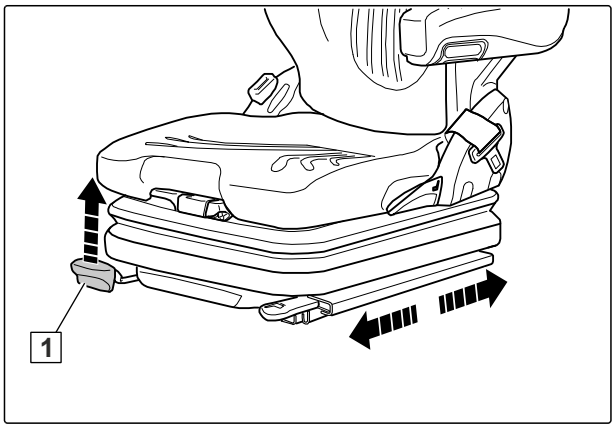
6.2.1 Selecting the longitudinal setting

CMS-T-00002549-B.1

1. Pull the lever **1** up and hold it.
2. Push the seat into the desired position.
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The seat is locked in the set position.

4. Check that the seat is firmly locked.



CMS-I-00002335

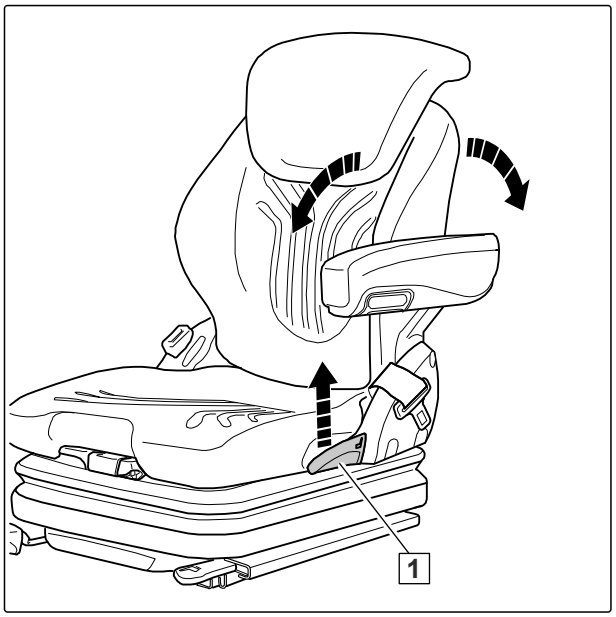
6.2.2 Adjusting the backrest

CMS-T-00002556-B.1

1. Pull the lever **1** up and hold it.
2. Move the backrest to the desired position.
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The backrest is locked in the desired position.

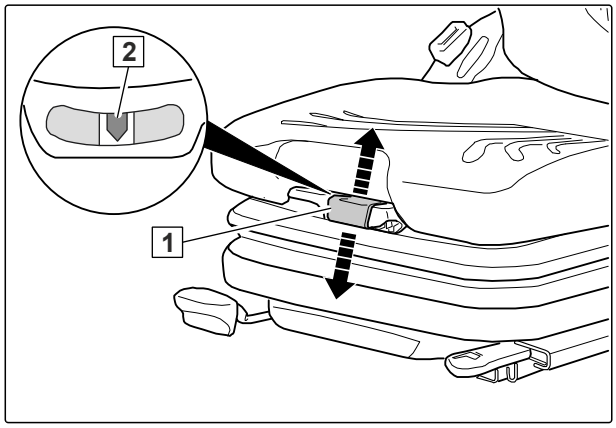
4. *To fold the backrest completely to the front,* Fold up the armrests.
5. Pull on the lever and hold it.
6. Fold the backrest completely to the front.



CMS-I-00002337

6.2.3 Setting the driver's weight for the air suspension

CMS-T-00002557-B.1



CMS-I-00002333

For proper functioning of the air suspension, the weight of the respective driver must be set while the driver's seat is occupied. The weight can be set from 45 kg to 170 kg.

1. Sit on the driver's seat.

2. *To set the driver's weight,*
   pull on the lever **1**

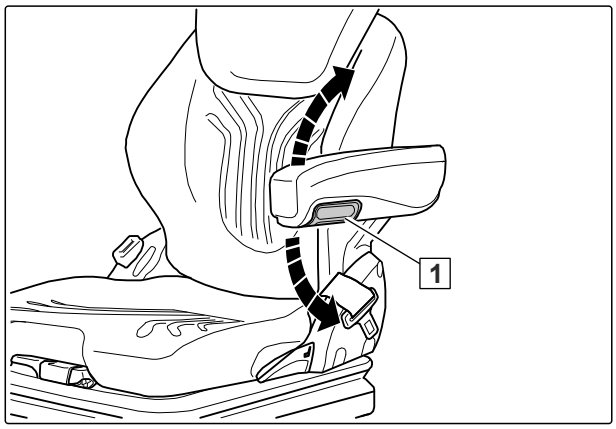
   or

   push on the lever.

➡ When the arrow **2** is positioned within the middle transparent area, the driver's weight is correctly set.

6.2.4 Adjusting the armrests

CMS-T-00002558-B.1



CMS-I-00002332

The slant of the armrests can be adjusted using the hand wheel **1**.

▶ *To raise the armrest,*
turn the hand wheel outwards

or

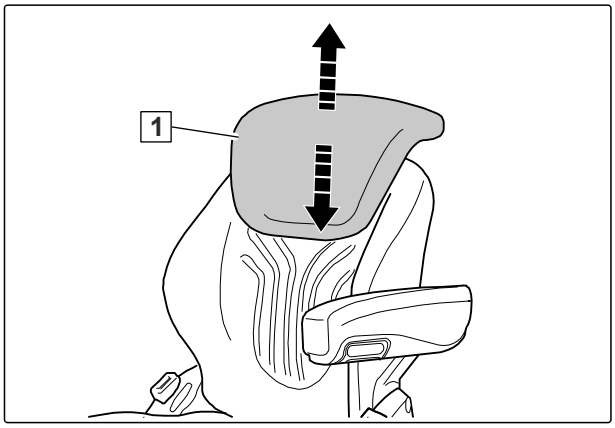
To lower the armrest,
turn the hand wheel inwards.

NOTE

When the armrest is folded down, it stops at the previously set slanted position.

6.2.5 Adjusting the headrest

CMS-T-00002559-B.1



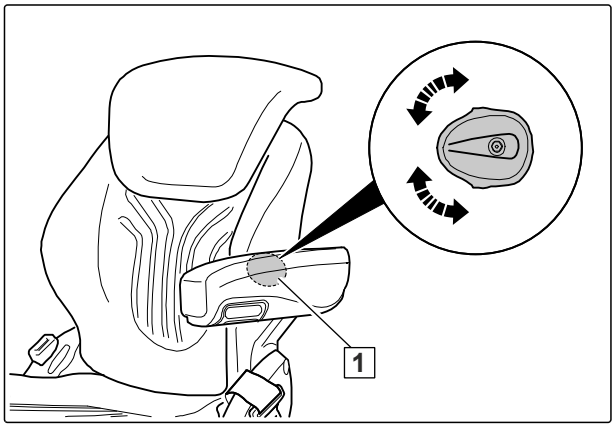
CMS-I-00002334

► *To adjust the height of the headrest* **1**, pull out or push in the headrest over the perceptible increments.

► *To remove the headrest,*
Pull the headrest out with a jerk beyond the top end stop.

6.2.6 Adjusting the lumbar support

CMS-T-00002560-B.1



CMS-I-00002336

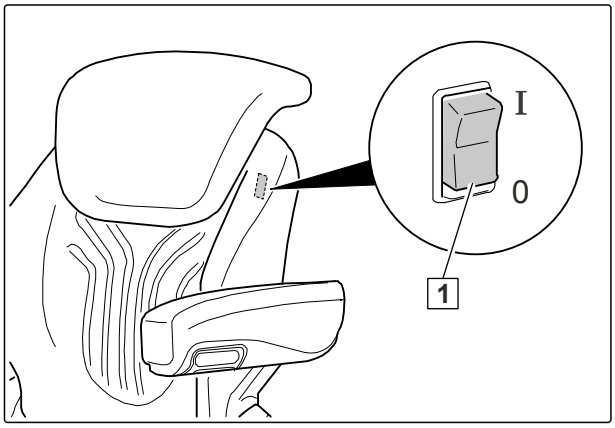
- Position 0 = No protrusion
- Position 1 = Maximum protrusion at the top
- Position 2 = Maximum protrusion at the bottom

► *To adjust the extent of the protrusion in the top area of the backrest cushion,*
turn the hand wheel **1** up.

► *To adjust the extent of the protrusion in the bottom area of the backrest cushion,*
turn the hand wheel down.

6.2.7 Seat heater

CMS-T-00002561-B.1



CMS-I-00002338

- Position 0 = Seat heater off
- Position 1 = Seat heater on

► With the **1** switch, the seat heater can be switched on

or

off.

6.3 Adjusting the Primo XL driver's seat

CMS-T-00003068-B.1

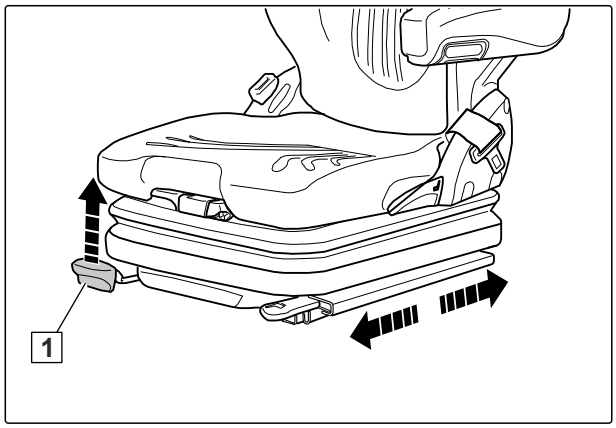
6.3.1 Selecting the longitudinal setting

CMS-T-00002549-B.1

1. Pull the lever **1** up and hold it.
2. Push the seat into the desired position.
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The seat is locked in the set position.

4. Check that the seat is firmly locked.



CMS-I-00002335

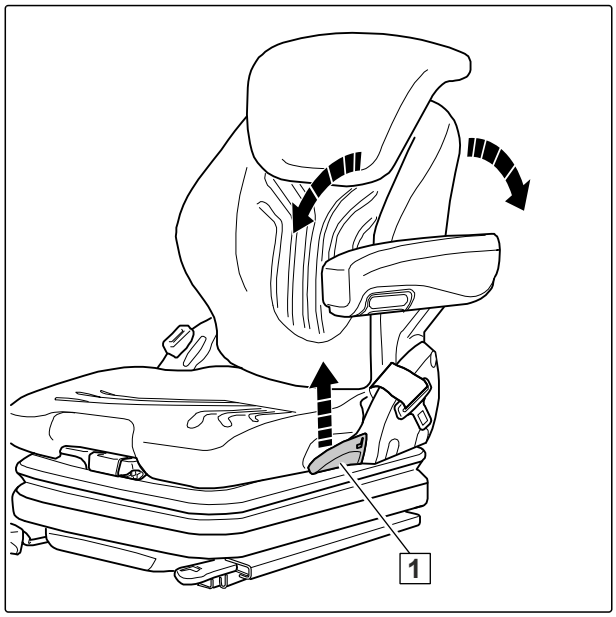
6.3.2 Adjusting the backrest

CMS-T-00002556-B.1

1. Pull the lever **1** up and hold it.
2. Move the backrest to the desired position.
3. Let go of the lever.

➡ The lever engages perceptibly and audibly. The backrest is locked in the desired position.

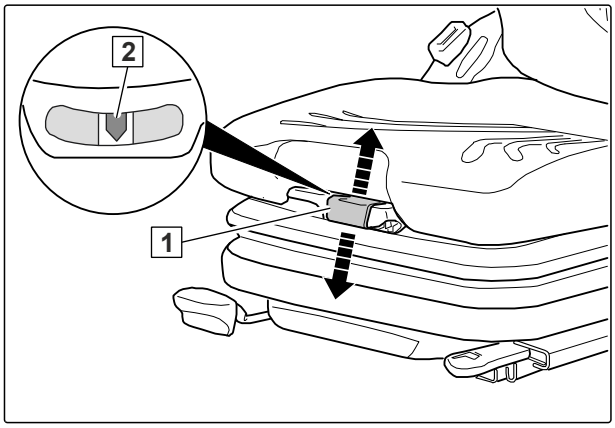
4. *To fold the backrest completely to the front,* Fold up the armrests.
5. Pull on the lever and hold it.
6. Fold the backrest completely to the front.



CMS-I-00002337

6.3.3 Setting the driver's weight for the air suspension

CMS-T-00002557-B.1



CMS-I-00002333

For proper functioning of the air suspension, the weight of the respective driver must be set while the driver's seat is occupied. The weight can be set from 45 kg to 170 kg.

1. Sit on the driver's seat.

2. *To set the driver's weight,*
   pull on the lever **1**

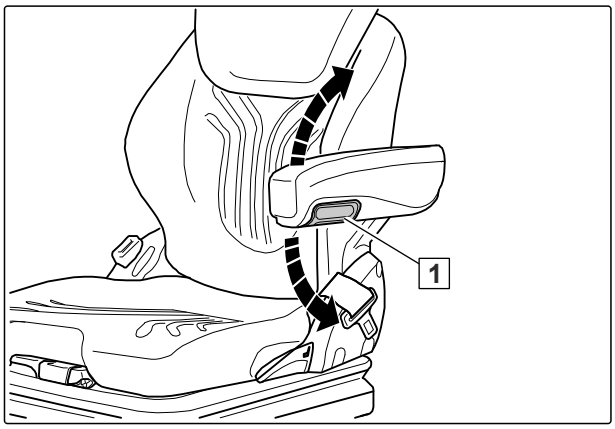
   or

   push on the lever.

➡ When the arrow **2** is positioned within the middle transparent area, the driver's weight is correctly set.

6.3.4 Adjusting the armrests

CMS-T-00002558-B.1



CMS-I-00002332

The slant of the armrests can be adjusted using the hand wheel **1**.

▶ *To raise the armrest,*
turn the hand wheel outwards

or

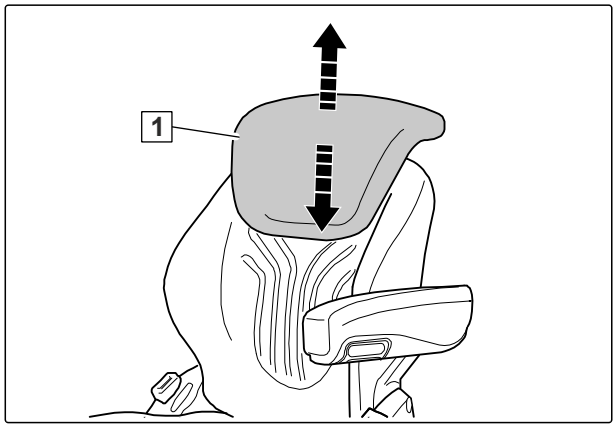
To lower the armrest,
turn the hand wheel inwards.

NOTE

When the armrest is folded down, it stops at the previously set slanted position.

6.3.5 Adjusting the headrest

CMS-T-00002559-B.1

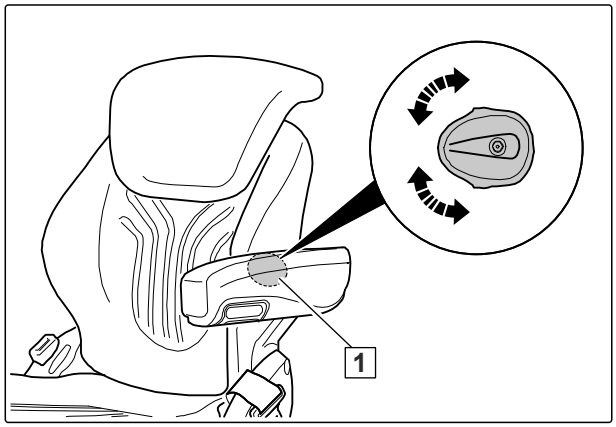


CMS-I-00002334

- *To adjust the height of the headrest* **1**, pull out or push in the headrest over the perceptible increments.
- *To remove the headrest,* Pull the headrest out with a jerk beyond the top end stop.

6.3.6 Adjusting the lumbar support

CMS-T-00002560-B.1



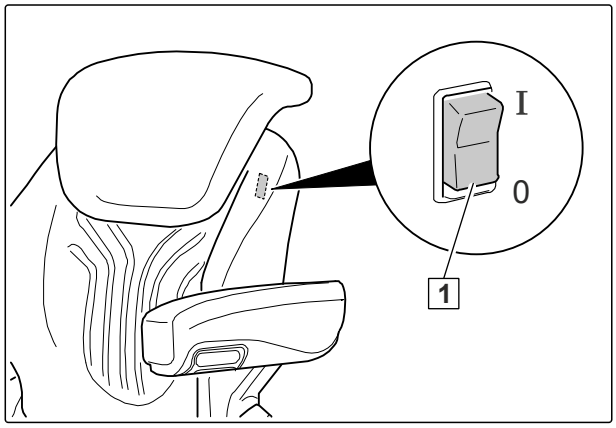
CMS-I-00002336

- Position 0 = No protrusion
- Position 1 = Maximum protrusion at the top
- Position 2 = Maximum protrusion at the bottom

- *To adjust the extent of the protrusion in the top area of the backrest cushion,* turn the hand wheel **1** up.
- *To adjust the extent of the protrusion in the bottom area of the backrest cushion,* turn the hand wheel down.

6.3.7 Seat heater

CMS-T-00002561-B.1



CMS-I-00002338

- Position 0 = Seat heater off
- Position 1 = Seat heater on

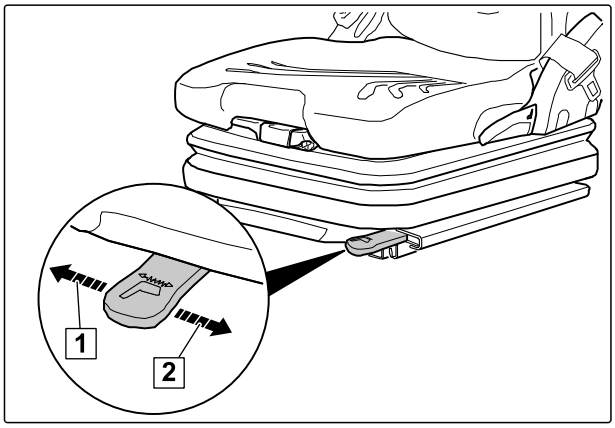
- With the **1** switch, the seat heater can be switched on

  or

  off.

6.3.8 Adjusting the fore/aft isolator

CMS-T-00002852-B.1

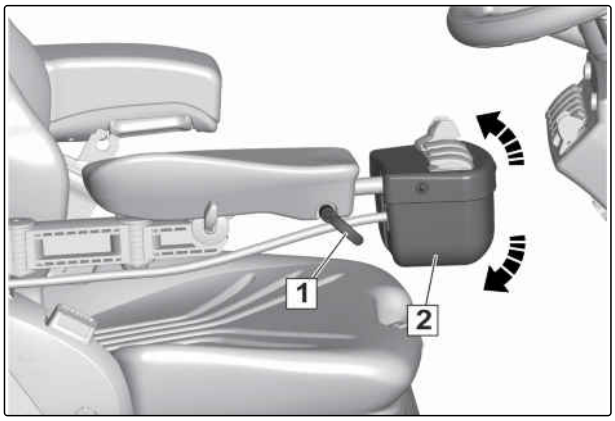


CMS-I-00002448

- ▶ *To switch on the fore/aft isolator,* set the handle to position **1**.
- ▶ *To switch off the fore-aft isolator,* set the handle to position **2**.

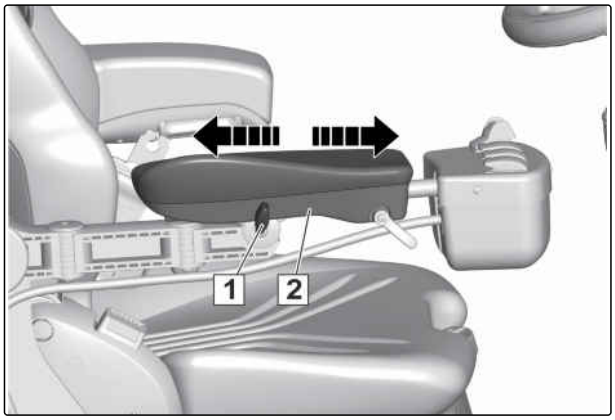
6.4 Adjusting the armrest with control panel

CMS-T-00002550-B.1



CMS-I-00002330

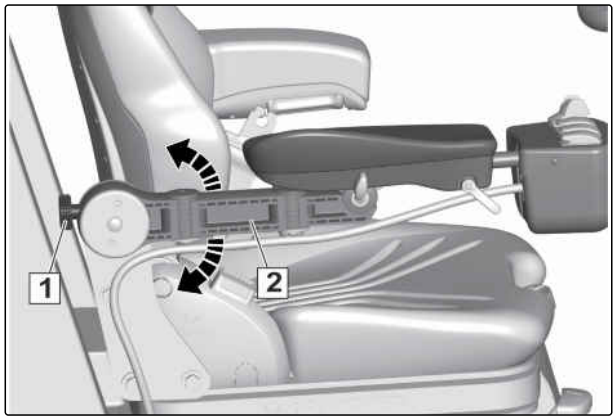
1. Release the lever **1**.
2. Swivel the control panel **2** to the desired position.
3. Tighten the lever.



CMS-I-00002329

4. Loosen the locking bolt **1**
5. Push the armrest **2** forward or back.
6. Tighten the locking bolt.

7. Loosen the locking bolt 1.
8. Adjust the slant of the armrest 2.
9. Tighten the locking bolt.

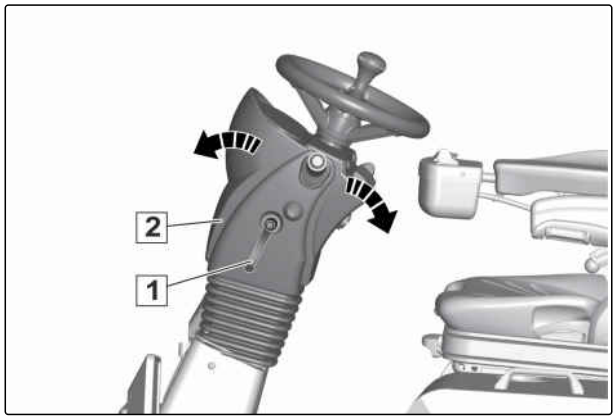


CMS-I-00002331

6.5 Adjusting the steering column

CMS-T-00002534-A.1

1. Loosen the clamping lever 1.
2. Swivel the steering column 2 in the desired position.
3. Tighten the clamping lever.

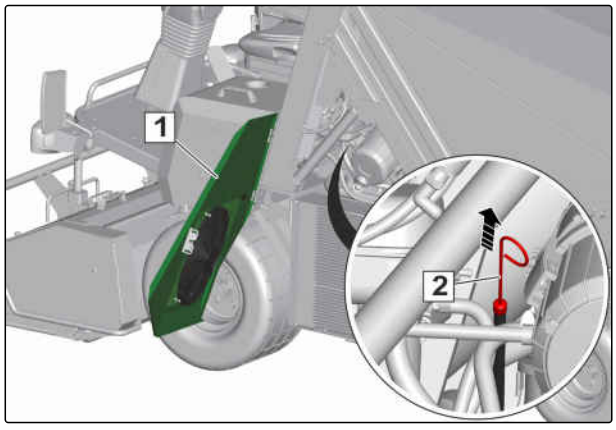


CMS-I-00002325

6.6 Checking the oil level

CMS-T-00002540-B.1

1. Open the radiator cover 1.
2. Pull out the dipstick 2.

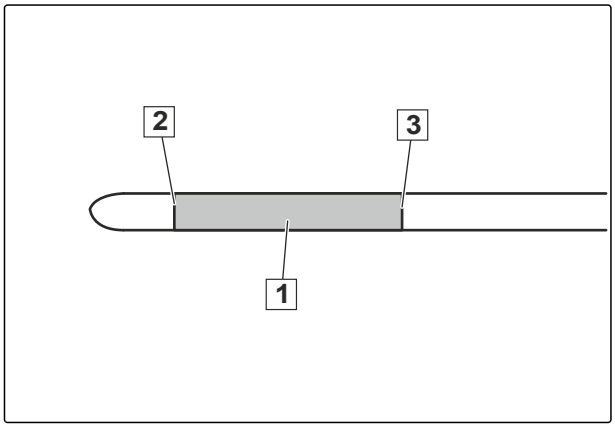


CMS-I-00002317

3. Read the engine oil level 1.

➡ The correct oil level lies between the minimum 2 and maximum 3 marks.

4. *If the engine oil level is below the minimum level,*
refill the engine oil.



CMS-I-00002318

6.7 Refilling the engine oil

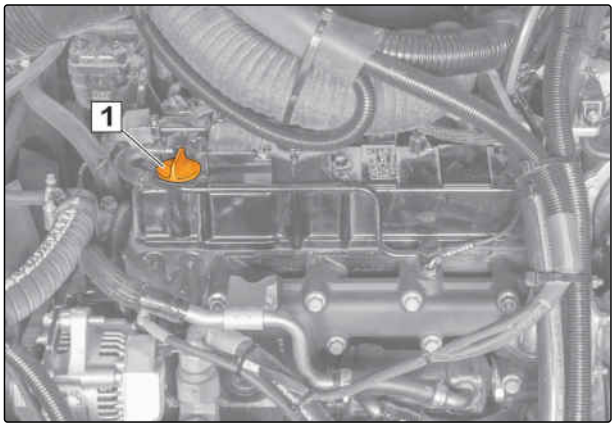
CMS-T-00002611-A.1

1. Open the engine cover.

ENVIRONMENTAL INFORMATION

Danger due to escaping oil

- Collect any escaping oil.
- Dispose of oil removal material in an environmentally friendly manner.



CMS-I-00002414

2. Open the sealing cap 1.

3. Fill up the engine oil.

4. Check the engine oil level.

5. Close the sealing cap.

6. Close the engine cover.

6.8 Checking the hydraulic oil level

CMS-T-00002542-B.1

1. Completely lower the grass collector.

2. Raise the cutting deck completely.

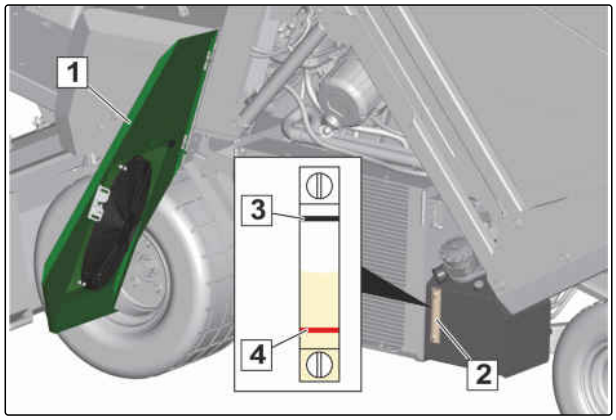
3. Open the radiator cover 1.

4. Check the hydraulic oil level on the fill level indicator 2 of the oil tank.

➡ The hydraulic oil level is optimal when the level reaches the upper mark 3.

5. *If the hydraulic oil level is at or below the bottom mark 4,*
refill the hydraulic oil.

6. Close the radiator cover.



CMS-I-00002327

6.9 Refilling the hydraulic oil

CMS-T-00002613-B.1

1. Open the radiator cover.

2. Refill the hydraulic oil through the filling screw 1.

3. Check the hydraulic oil level.

4. Close the radiator cover.

CMS-I-00002437

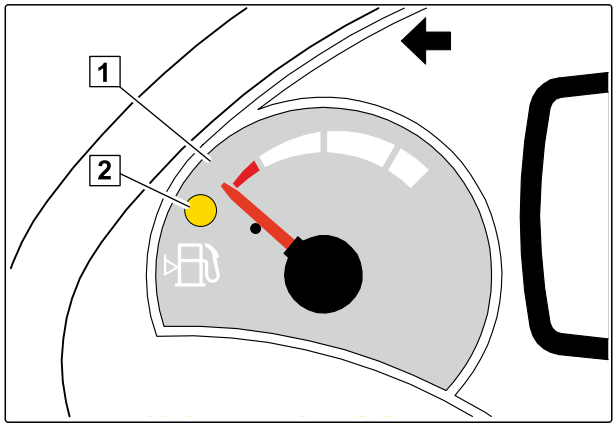
6.10 Checking the fill level of the diesel fuel tank

CMS-T-00002543-B.1

1. Switch on the ignition.

2. Check the fill level on the fuel indicator 1.

3. *If the pointer is in the red area or the warning lamp 2 lights up,*
refill diesel fuel.



CMS-I-00002267

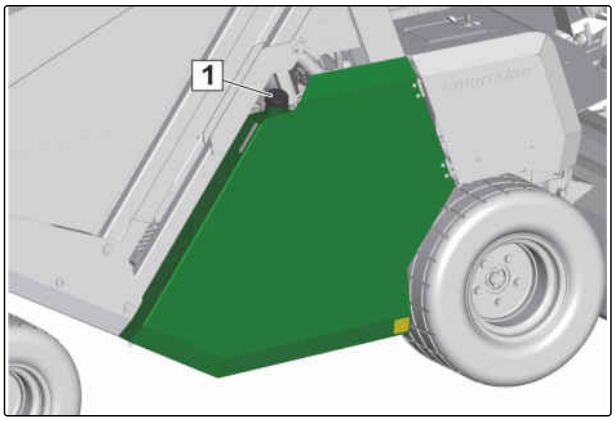
6.11 Refuelling diesel

CMS-T-00002616-B.1

IMPORTANT

Machine damage due to incorrect or insufficient fuel.

- Only use diesel fuels with a sulphur content ≤ 10 mg/kg, according to the standards DIN 51628 und EN 590.
- Do not use biodiesel or other fuel mixtures.
- *Before the fuel tank is completely empty,* refill diesel fuel.



CMS-I-00002328

1. Secure the machine.
2. Clean the sealing cap 1 and the area around the filler neck.
3. Screw the sealing cap open.
4. Fill in diesel fuel.
5. Screw the sealing cap closed.

6.12 Checking the tyre inflation pressure

CMS-T-00002541-C.1

NOTE

The required tyre inflation pressures can be found in the Technical Data. Deviating tyre inflation pressures have a negative effect on the driving behaviour.

1. Check the tyre inflation pressure on all 6 tyres.
2. Correct the tyre inflation pressure if necessary.

6.13 Checking the blades and blade mounts

CMS-T-00002680-B.1

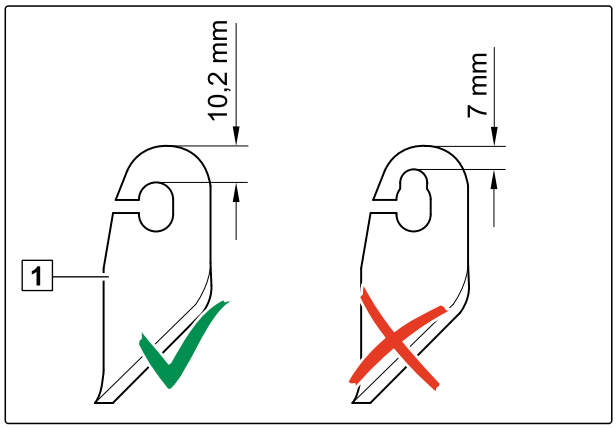
WARNING

Rotor still running

Risk of drawing in and cutting injuries

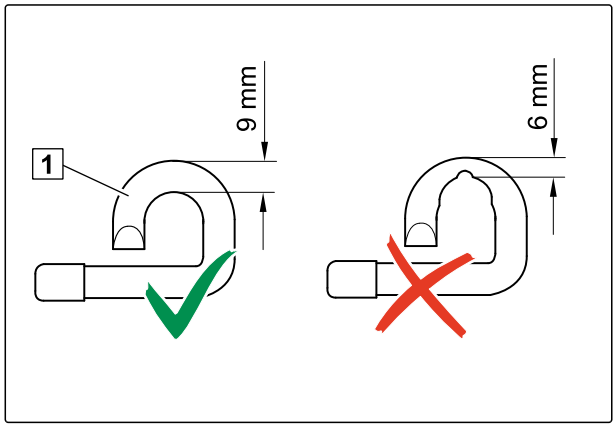
► *As long as the rotor and cutting tools are moving,*
keep the rotor protective cover closed.

1. Open the rotor protective cover.
2. Check the wear on the blades [1].
3. *If the wear limit of 7 mm is undercut in the mounting area,*
replace the blade.



CMS-I-00002442

4. Check the wear on the blade mounts [1].
5. *If the wear limit of 6 mm is undercut in the mounting area,*
replace the blade mount.
6. Check the bolted connections on the blade mounts for firm seating.
7. Close the rotor protective cover.



CMS-I-00002443

6.14 Selecting the blades

CMS-T-00002950-B.1

Depending on the application area, the rotor must be equipped with the right blades. The following table shows which equipment should be used to achieve very good work results.

Application area	Flail blade, long H77, standard	Scarifying blade 3 mm	Scarifying blade 2 mm	Flail blade, long H77 with scarifying blade	Flail blade, short H60 with scarifying blade
					
Grass court maintenance	●●●				
Golf course maintenance	●●●				
Park maintenance	●●●				
Public park maintenance	●●●				
Mowing and collecting under wet conditions	●●●				
Leaf collection	●●●			●●●	●●●
Scarifying		●●●			●●●
Scarifying on golf courses and turf			●●●		●●●
Combing out grass, e.g. in addition to the cylinder mower					●●●
Paddock maintenance				●●●	
Required number of blades	44 pairs	44 units	44 units	44 pairs + 44 units	44 pairs + 44 units

●●● = Very good results

► Equip the rotor with the blades for the corresponding purpose.

6.15 Changing or replacing the blades

CMS-T-00002537-B.1

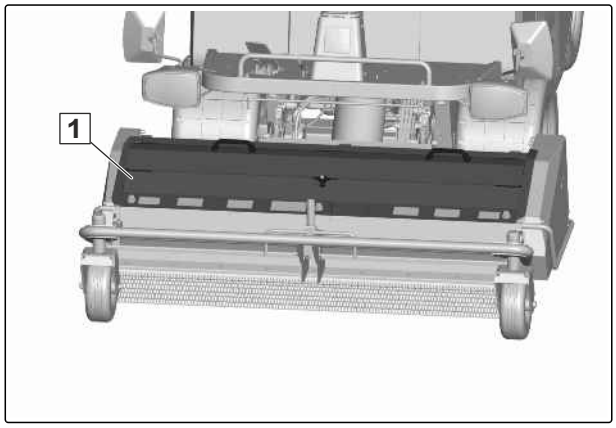
WARNING

Rotor still running

Risk of drawing in and cutting injuries

- *As long as the rotor and cutting tools are moving,*
  keep the rotor protective cover closed.

1. Open and secure the rotor protective cover 1.



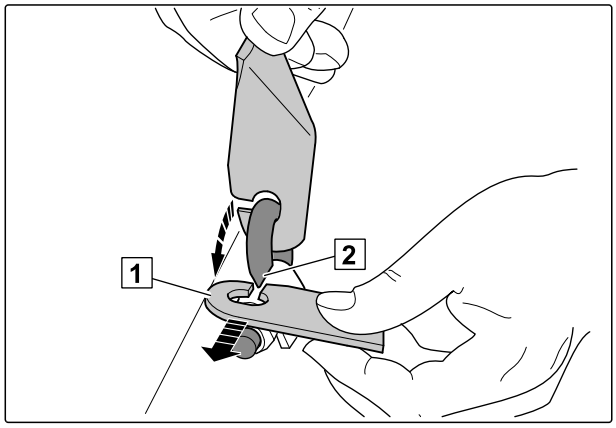
CMS-I-00002234

IMPORTANT

Machine damage due to incorrect blade selection or incorrect blade installation

Imbalance on the rotor and machine vibrations

- Select the blades appropriately for the application area.
- Always equip the rotor with the specified number of blades.
- Install the blades in the proper installation position.
- Pay attention to the wear limits.
- Replace worn blades.



CMS-I-00002324

2. Swivel the blade 1 towards the pointed area 2 of the mount.

3. Turn the blade by 90° and take it out with the open side on the pointed area.

4. Push in a different or new blade with the open side on the pointed area and swivel the blade on the mount.

5. Close the rotor protective cover.

6.16 Installing the mulch flap

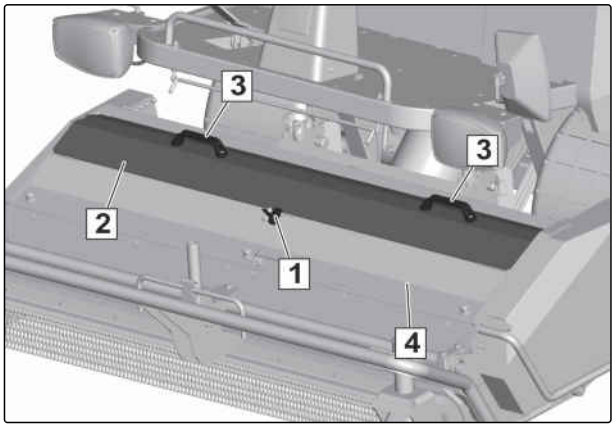
CMS-T-00002639-B.1

The machine is equipped with a mulch flap. The mulch flap makes it possible to mow and chop without collecting the mowed material.

1. Loosen the locking screw [1].

2. Take off the mulch flap [2] by the handles [3].

3. Open the rotor protective cover [4].



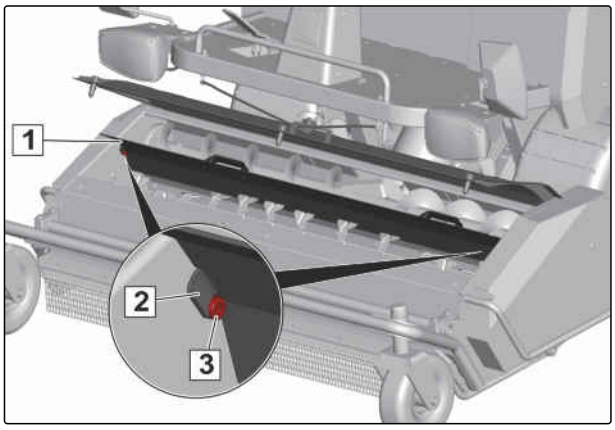
CMS-I-00002376

4. Insert the mulch flap [1] in the cutting deck.

5. Hook the lugs [2] on both sides onto the bolts [3].

6. Swivel the mulch flap to the front until the mulch flap is resting at the rear.

➡ The mulch flap is installed and prevents transport of mowed material to the auger. The mowed material is chopped and distributed on the ground.



CMS-I-00002377

7. Close the rotor protective cover.

6.17 Removing the mulch flap

CMS-T-00002868-B.1

1. Shutdown the machine.

2. Open the rotor protective cover.

3. Take the mulch flap out of the cutting deck.

4. Clean the mulch flap.

5. Close the rotor protective cover.

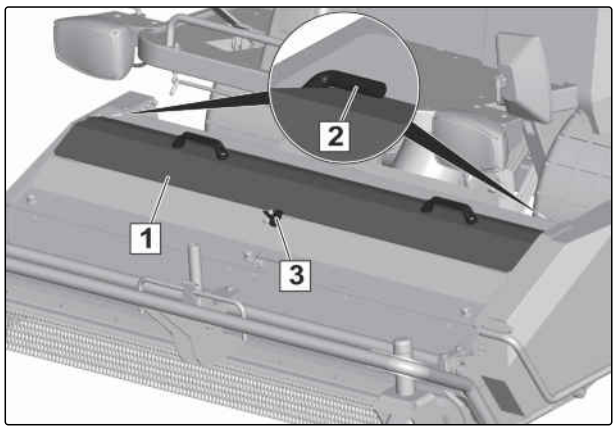
6. Put the mulch flap [1] on the rotor protective cover.

➡ The mulch flap must grip on the left and right under the hooks [2].

7. Tighten the locking screw [3].

➡ The mulch flap is locked in transport position.

8. Check that the mulch flap is securely fastened.



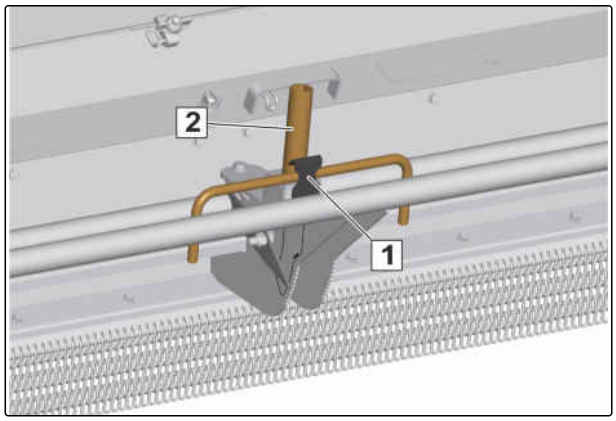
CMS-I-00002378

6.18 Adjusting the cutting height

CMS-T-00002538-B.1

1. Pull the locking mechanism [1] on the bracket towards the front.

2. Take out the crank [2].

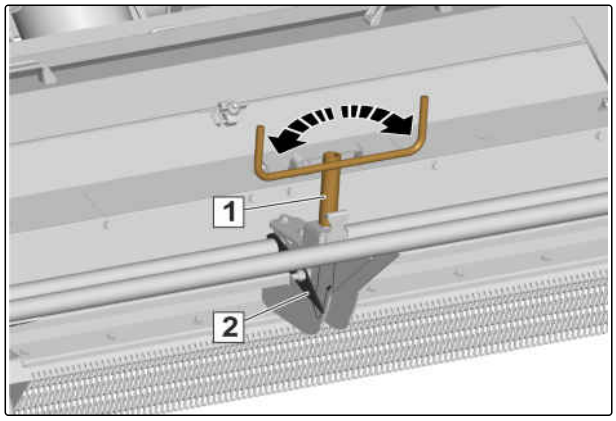


CMS-I-00002314

3. Push the crank [1] onto the setting screw.

4. *To adjust the cutting height,*
Turn the crank to the left or right.

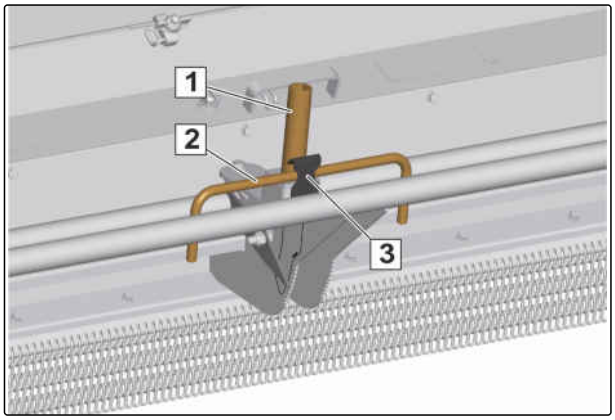
➡ The set cutting height is shown on the cutting height indicator [2].



CMS-I-00002316

5. Push the crank [1] down into the bracket using the handle [2] until the locking mechanism [3] engages.

6. Check that the crank is properly locked.



CMS-I-00002315

6.19 Folding up the roll-over protection

CMS-T-00002547-B.1

CAUTION

Risk of crushing hands when folding the roll-over protection

- *When you fold the roll-over protection,* do not reach into the rotation area.
- Always hold the roll-over protection firmly at the top.
- Guide the roll-over protection by hand until its end position.

1. Fold the backrest of the driver's seat all the way to the front.

2. Push the driver's seat all the way to the front.

3. Pull out the locking levers [1], on the left and right, and turn to the right up to the stop.

➡ The locking lever is locked when it is in the open position.

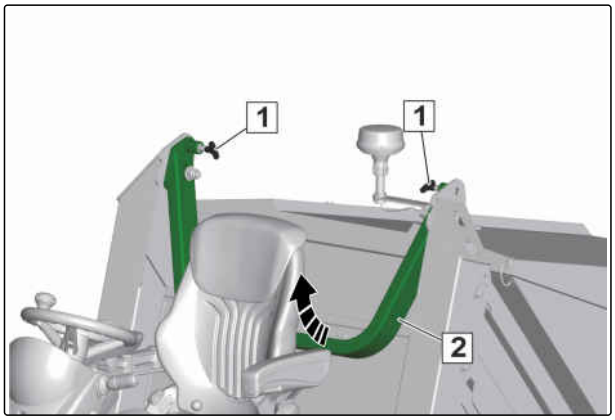
4. Fold up the roll-over protection [2].

5. Turn the locking lever to the left and allow it to glide into the mount.

➡ The roll-over protection is locked.

6. Check that the roll-over protection is securely locked.

7. Adjust the driver's seat.



CMS-I-00002312

6.20 Folding down the roll-over protection

CMS-T-00002546-B.1

WARNING

Risk of crushing when the roll-over protection is always folded down

The driver can be injured or even killed if the machine tips over

- Only fold down the roll-over protection temporarily for obstacles.
- Only fold down the roll-over protection on level ground.
- *When the safety bar is folded down,* take off the seat belt.
- *When you have passed an obstacle,* fold the roll-over protection back up immediately.
- *When the safety bar is folded up,* put on the seat belt.

CAUTION

Risk of crushing hands when folding the roll-over protection

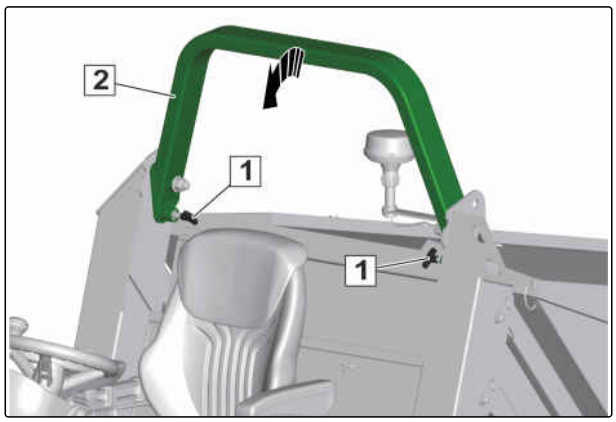
- *When you fold the roll-over protection,* do not reach into the rotation area.
- Always hold the roll-over protection firmly at the top.
- Guide the roll-over protection by hand until its end position.

1. Fold the backrest of the driver's seat all the way to the front.
2. Push the driver's seat all the way to the front.
3. Pull out the locking levers [1], on the left and right, and turn to the right up to the stop.

➡ The locking lever is locked when it is in the open position.

4. Fold down the roll-over protection [2] to the front.
5. Turn the locking lever to the left and allow it to glide into the mount.

➡ The roll-over protection is locked.



CMS-I-00002313

6. Check that the roll-over protection is securely locked.

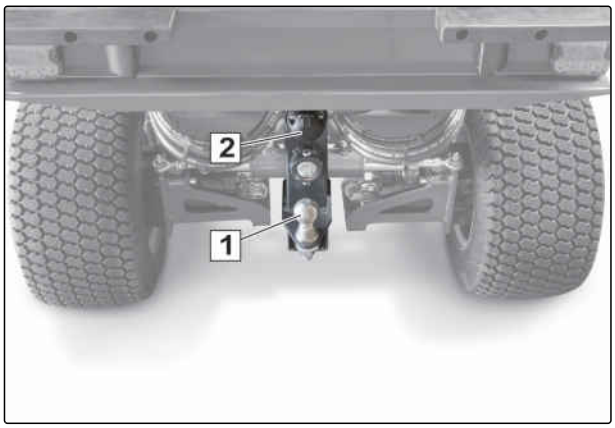
7. Adjust the driver's seat.

6.21 Coupling the trailer

CMS-T-00002706-B.1

1. Couple the trailer on the trailer coupling **1**.

2. Insert the plug for the power supply into the socket **2**.



CMS-I-00002390

6.22 Preparing the machine for road travel

CMS-T-00002539-A.1

1. Check the cleanliness of the lighting and the turn indicators.

2. Clean dirty lighting before road travel.

3. Check the lighting and turn indicators for proper function.

4. Repair defective lighting and turn indicators immediately.

5. Check the warning beacon for proper function.

6. Repair defective warning beacon immediately.

7. Completely empty the grass collector.

8. Remove loose clippings on the cutting deck.

9. Raise the cutting deck completely.

Using the machine 7

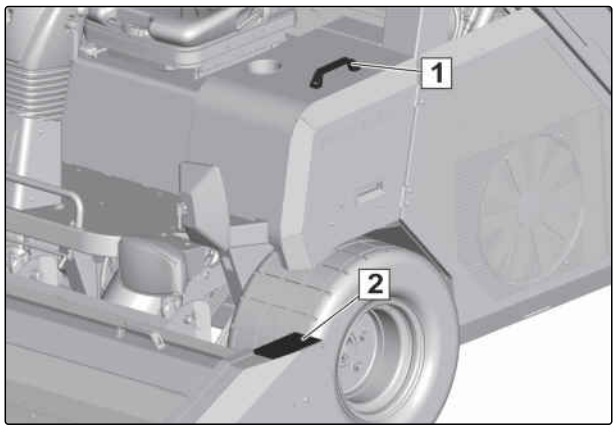
CMS-T-00003058-D.1

7.1 Climbing on and off

CMS-T-00002666-B.1

1. *To climb on and off a machine without a cab,* use the handle [1] and the steps [2].

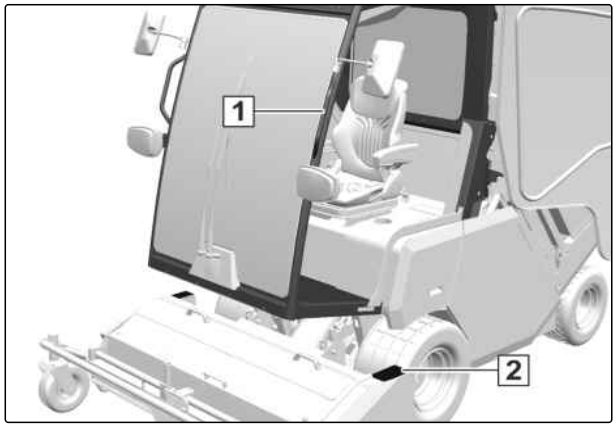
2. Always climb up and down facing the machine.



CMS-I-00002386

3. *To climb on and off a machine with a cab,* use the holding point [1] on the cab and the steps [2].

4. Always climb up and down facing the machine.



CMS-I-00004715

7.2 Driving the machine

CMS-T-00003073-D.1

7.2.1 Using the seat belt

CMS-T-00002627-B.1

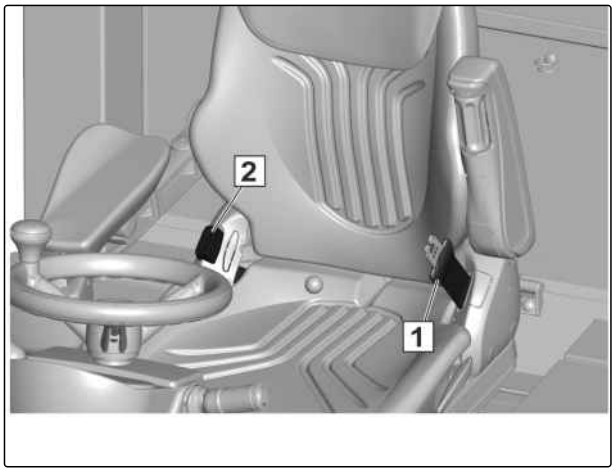
WARNING

Improper use of the seat belt

- *When the roll-over protection is folded up,*
  put on the seat belt.
- *If you briefly fold down the roll-over protection,*
  do not put on the seat belt.

1. Pull the seat belt by the belt tongue [1] over your hips.
2. Press the belt tongue into the belt buckle [2].

➡ When the belt tongue engages audibly, the seat belt is locked.



CMS-I-00002373

3. *To take off the seat belt,*
   press the red button on the belt buckle.

7.2.2 Starting the diesel engine

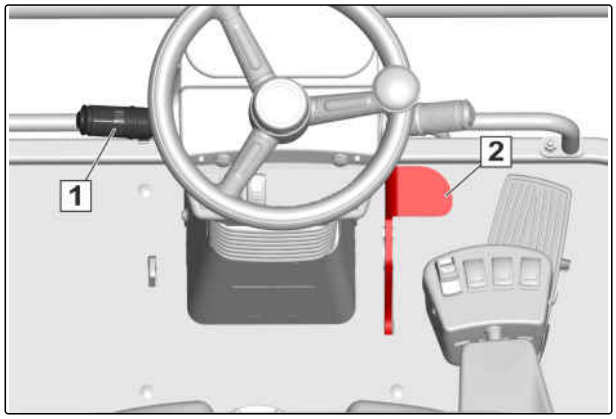
CMS-T-00002628-B.1

CAUTION

Risk of hearing damage due to high noise levels

- *When you are working with the machine,*
  always wear hearing protection.

1. Sit on the driver's seat.
2. Move the direction of travel selection lever [1] in neutral position.
3. Step on the brake pedal [2].



CMS-I-00002371

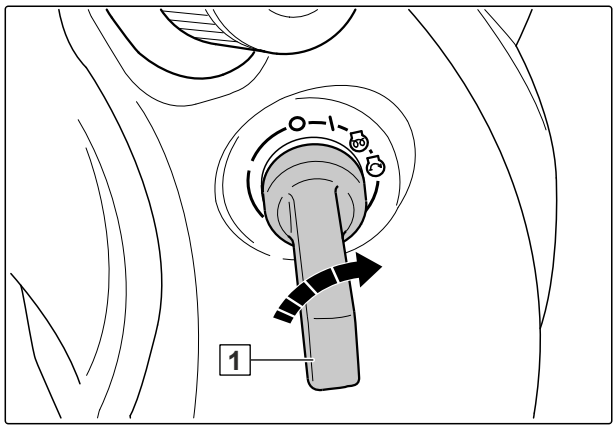
4. Insert the ignition key [1] into the ignition lock.
5. Turn the ignition key to position |.

➡ The steering wheel lock is unlocked.

6. Turn the ignition key to position .

➡ The ignition is switched on. The diesel engine preheats. When the diesel engine is cold, preheating can take up to 20 seconds.

7. *When the control lamp is turned off,* turn the ignition key further to position and hold.
8. *As soon as the diesel engine is running,* release the ignition key.

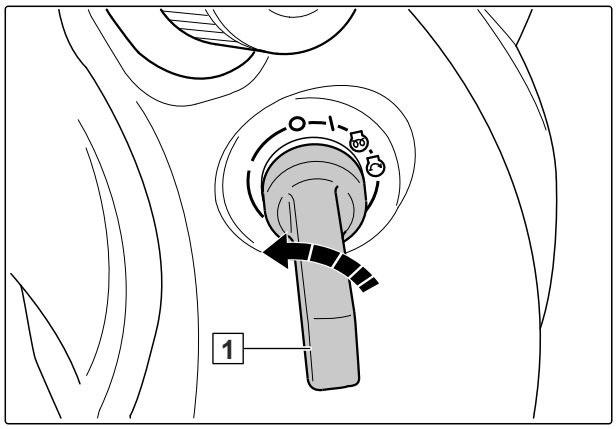


CMS-I-00002372

7.2.3 Switching off the diesel engine

CMS-T-00002667-B.1

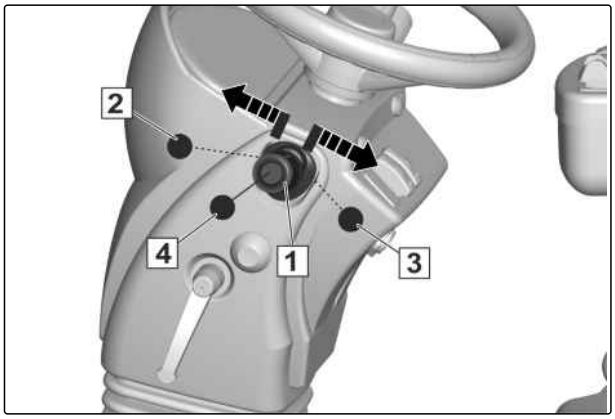
1. Bring the machine to a standstill.
2. Move the direction of travel selection lever to the neutral position.
3. Apply the parking brake.
4. Turn the ignition key [1] to position .



CMS-I-00002385

7.2.4 Selecting the direction of travel

CMS-T-00002629-B.1



CMS-I-00002370

1. Sit on the driver's seat.
2. *To drive forwards,*
   lift the selection lever **1** and move to position **2**

   or

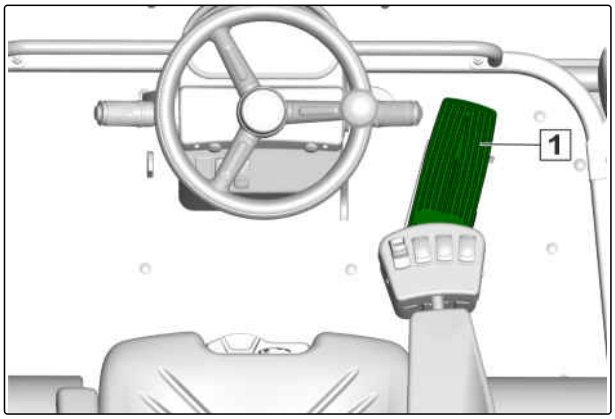
   To drive in reverse,
   lift the selection lever and move to position **3**.

   or

   move the selection lever to the neutral position **4**.

7.2.5 Accelerating

CMS-T-00002631-B.1

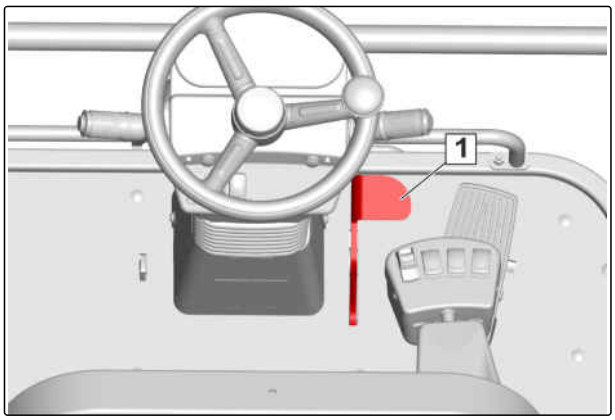


CMS-I-00002369

1. Select the direction of travel.
2. Step on the accelerator pedal **1**.

7.2.6 Braking

CMS-T-00002632-B.1

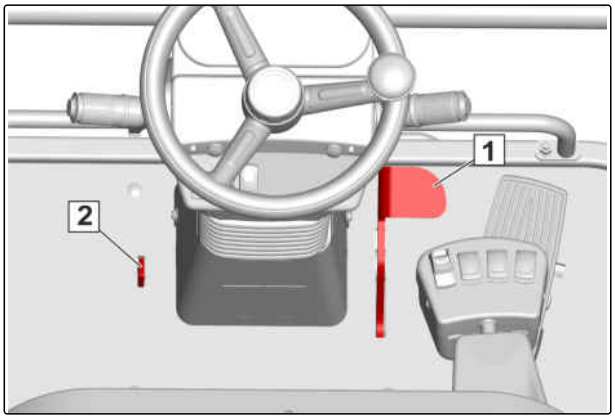


CMS-I-00002368

▶ Step on the brake pedal **1**.

7.2.7 Applying the parking brake

CMS-T-00002633-B.1



CMS-I-00002367

1. Step on the brake pedal 1.
2. Actuate the locking lever 2.
3. Release the brake pedal.

➡ The parking brake is active and the control lamp (P) lights up.

4. *To release the parking brake,*
   Step on the brake pedal.

➡ The parking brake is released and the control lamp (P) is turned off. The service brake holds the machine.

7.2.8 Using cruise control

CMS-T-00003074-B.1

7.2.8.1 Switching cruise control on

CMS-T-00002630-B.1

NOTE

Cruise control only works when driving forwards.

CMS-I-00002365

1. Drive at the desired speed.
2. Press the operating button once.

➡ The control lamp lights up. The current driving speed will be maintained and saved.

3. *To save a new forward speed,*
   press the operating button for 2 seconds.

7.2.8.2 Switching cruise control off

CMS-T-00002866-B.1

CMS-I-00002365

1. Press the operating button  once.

➡ Cruise control is switched off and the control lamp is turned off. The driving speed is controlled manually with the accelerator pedal again.

2. *To call up the previously saved speed,* switch cruise control back on.

NOTE

Cruise control is automatically switched off under the following conditions:

- The service brake is pressed.
- The accelerator pedal is pressed.
- The direction of travel is changed using the selection lever.
- The cruise control switch is pressed again.
- The cutting deck is blocked.
- The grass collector is not completely lowered.
- If there is a fault or error message.

7.2.9 Using the warning beacon

CMS-T-00002635-C.1

1. *If the work floodlights are mounted for use,* then convert them onto the warning beacon.

2. The warning beacon is converted in the same way as the work floodlights are mounted, see page 99.

3. Using the operating button 1, the warning beacon can be switched on

   or

   off.

CMS-I-00002366

7.2.10 Using the work floodlights

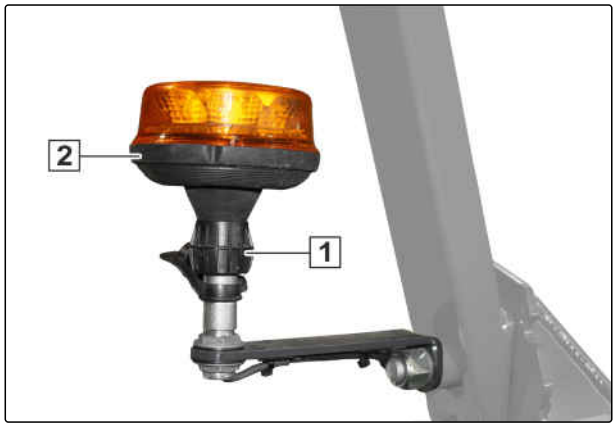
CMS-T-00006176-A.1

To use the work floodlights, the warning beacon must be converted onto the work floodlights.

NOTE

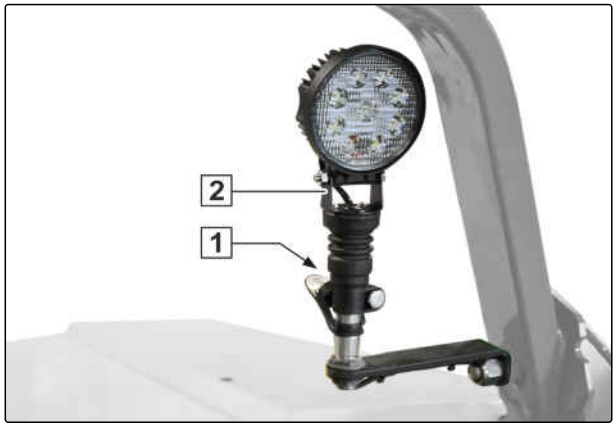
The electrical contact is located in the holder. The connection is established by completely sliding on the work floodlight.

1. Release the clamp connection 1.
2. Remove the warning beacon 2.



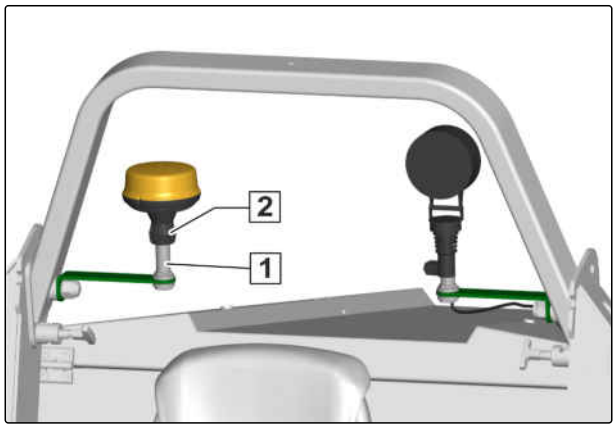
CMS-I-00004392

3. Completely slide the work floodlights 2 onto the holder.
4. Tighten the wing nut 1.



CMS-I-00004393

5. Slide the warning beacon onto the holder 1 for storage.
6. Tighten the 2 clamp connection.



CMS-I-00004391

7. Switch on the work floodlights with the operating button 1

   or

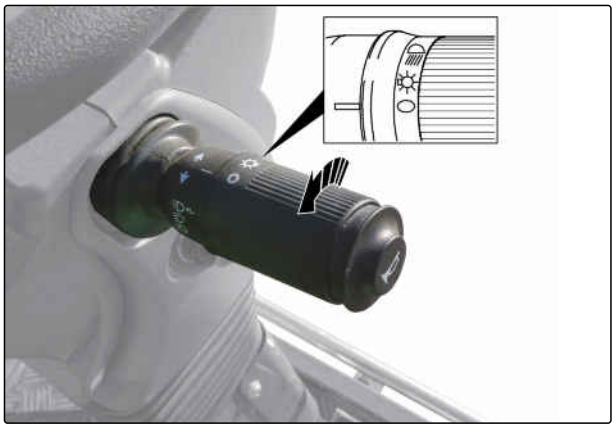
   off.

CMS-I-00002366

7.2.11 Using the lighting for road travel

CMS-T-00002634-C.1

- *To switch on the parking lights,*
  turn the rotary switch to position .
- *To switch on the dipped headlights,*
  turn the rotary switch to position .
- *To switch off the lighting for road travel,*
  turn the rotary switch to position .



CMS-I-00002362

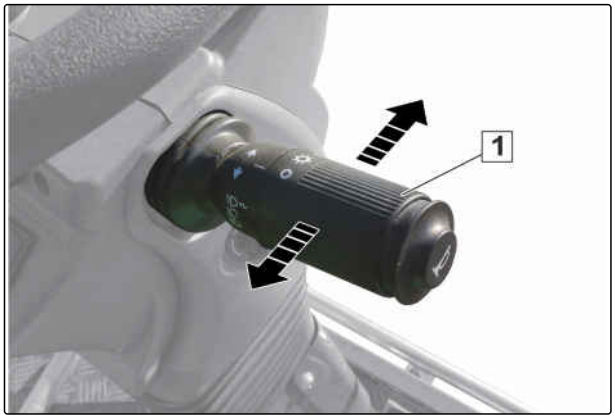
- *To switch on the left turn indicator,*
  push the lever 1 to the front.

➡ The left driving direction arrow flashes on the dashboard.

- *To switch on the right turn indicator,*
  push the lever to the rear.

➡ The right driving direction arrow flashes on the dashboard.

➡ After turning, the lever is automatically shifted back to the centre position.

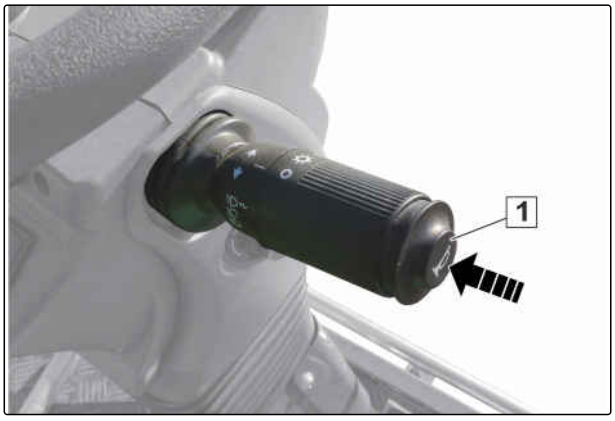


CMS-I-00002364

7.2.12 Actuating the horn

CMS-T-00002646-B.1

- ▶ Press the operating button 1.
- ➡ The horn is sounded as long as the button is pressed.



CMS-I-00002363

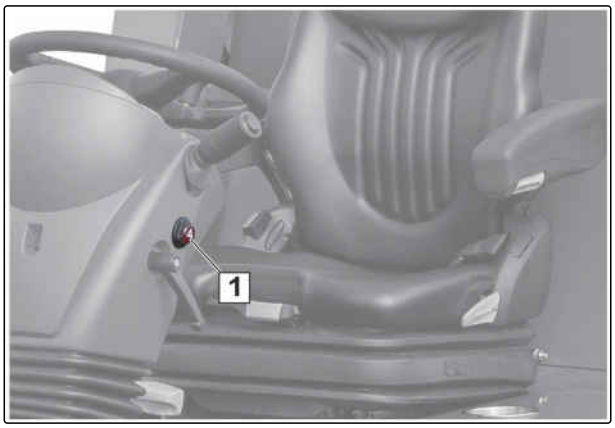
7.2.13 Using the hazard warning lights

CMS-T-00002647-B.1

- ▶ With the switch 1, the hazard warning lights are switched on

  or

  off.



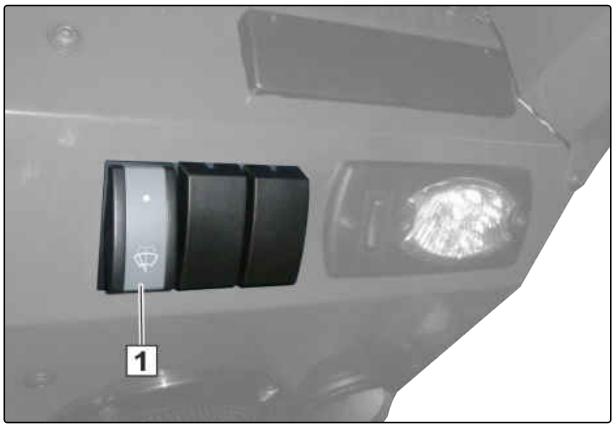
CMS-I-00002265

7.2.14 Using the windscreen wipers

CMS-T-00006637-A.1

1. Switch the windscreen wipers on or off using the control button 1.
2. *To use the windscreen washer system,* briefly press the control button.

- ➡ The windscreen wiper wipes with wiper water.



CMS-I-00004728

7.2.15 Using the air conditioning system and heater

CMS-T-00006645-A.1

7.2.15.1 Using the air conditioning system

CMS-T-00006638-A.1

REQUIREMENTS

✓ The diesel engine is running.

1. Set the fan switch [1] to level 1, 2 or 3.
2. Switch on the air conditioning system with the switch [3].

➡ The control lamp on the switch lights up.

3. *To set the desired temperature,*
   turn the temperature regulator [2] clockwise in the blue area.
4. *For rapid cooling and dehumidifying the cab after a longer period of standstill and at heigh outside temperature,*
   set the fan switch to level 3 at first.

CMS-I-00004727

7.2.15.2 Using the heater

CMS-T-00006646-A.1

REQUIREMENTS

✓ The diesel engine is running

1. Set the fan switch [1] to level 1, 2 or 3.
2. Switch off the air conditioning system with the switch [3].

➡ The control lamp on the switch goes out.

3. *To set the desired temperature,*
   turn the temperature regulator [2] counter-clockwise in the red area.

CMS-I-00004730

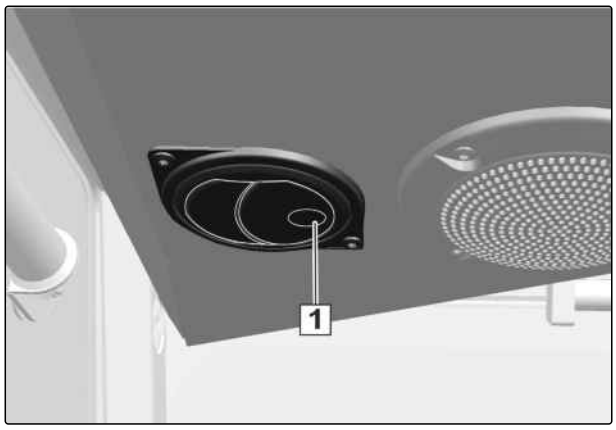
7.2.15.3 Adjusting the air nozzles

1. *To open the air nozzles,*
   press on the recess 1.

2. *To adjust the direction of the air outlet,*
   turn the air nozzles on the open grills in the desired direction.

3. *To close the air nozzles,*
   press the grill closed.

CMS-T-00006647-A.1

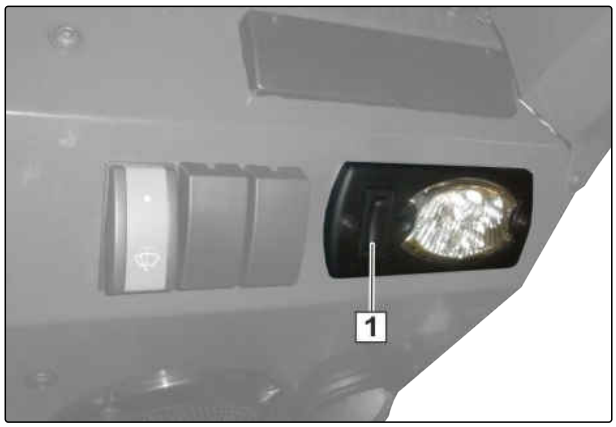


CMS-I-00004733

7.2.16 Using the cab lighting

- Switch the cab lighting on or off using the control button 1.

CMS-T-00006639-A.1



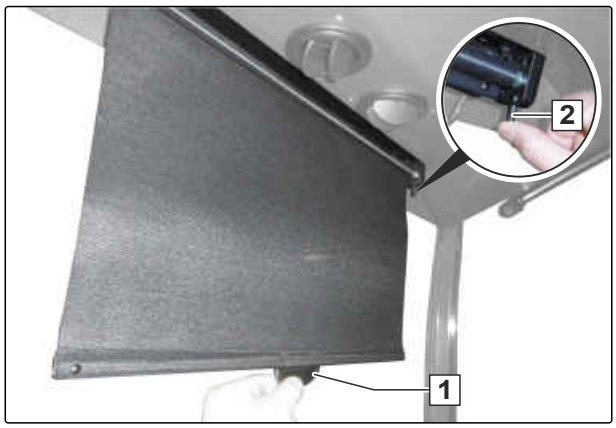
CMS-I-00004726

7.2.17 Using the sun protection blind

1. Pull out the sun protection blind by the tab 1 up to the desired position.

2. *To retract the sun protection blind,*
   press the button 2.

CMS-T-00006744-A.1



CMS-I-00004748

7.3 Using the implement

CMS-T-00003075-C.1

7.3.1 Starting mowing

CMS-T-00002637-C.1

DANGER

Turning rotor and ejected objects

- Lower the cutting deck completely before switching on the cutting deck.
- Only switch on the cutting deck when all of the protective covers are closed and securely locked.

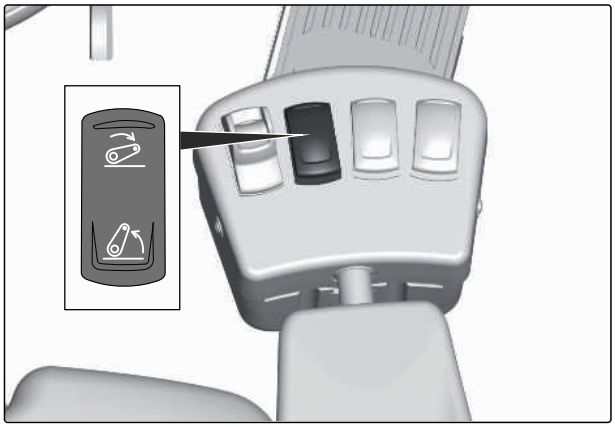
REQUIREMENTS

- ✓ The driver is sitting on the driver's seat
- ✓ The parking brake is released
- ✓ The grass collector is closed and completely lowered
- ✓ The grass collector is not completely full

1. *To lower the cutting deck,*

   Press the  button.

➡ The cutting deck is in float position and adapts to uneven terrain.



CMS-I-00002382

2. Start the engine.
3. Lower the cutting deck.
4. Switch on the cutting deck with the operating button 1.

➡ To activate the cutting deck coupling, the engine speed is reduced. When the cutting deck coupling is activated, the engine speed is increased again.

CMS-I-00002384

IMPORTANT

Damage to the conveyor system

- Do not overfill the grass collector.
- Pay attention to the acoustic fill level indicator.

5. *When the acoustic fill level indicator* **1** *sounds,* the grass collector must be emptied.

CMS-I-00002296

7.3.2 Stopping mowing

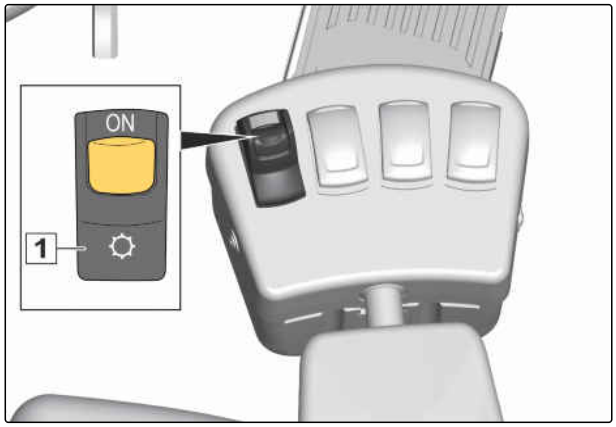
CMS-T-00002668-B.1

IMPORTANT

Risk of damage to the rotor

- *When the cutting deck is lowered and switched off,* do not move the machine.

1. Switch off the cutting deck with the operating button **1**.



CMS-I-00002449

DANGER

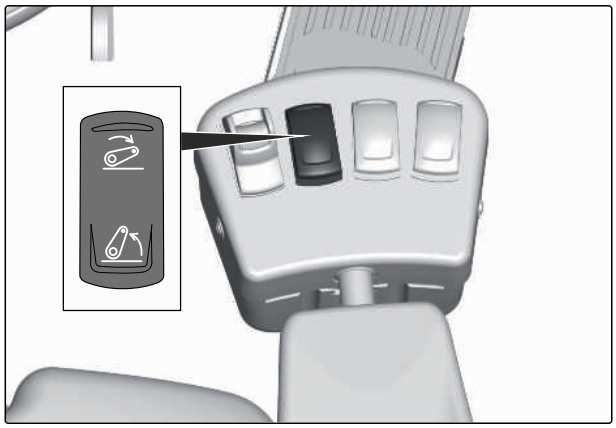
Rotor still running and ejected objects

Serious injuries or even death are possible

- Only raise the cutting deck when the rotor is standing still.

2. *To raise the cutting deck,*

   Press the  button.



CMS-I-00002383

7.3.3 Mulching

CMS-T-00003738-B.1

REQUIREMENTS

✓ A mulch flap is installed.

- Start and stop mulching just like mowing.

7.3.4 Scarifying

CMS-T-00002677-C.1

REQUIREMENTS

✓ Scarifying blades are installed.

IMPORTANT

Machine damage due to large amount of soil

- ▶ When scarifying, only fill the grass collector halfway when there is a large amount of soil.
- ▶ Observe the maximum permissible total weight according to the technical data.

▶ Start and stop scarifying just like mowing.

7.4 Emptying the grass collector

CMS-T-00003076-C.1

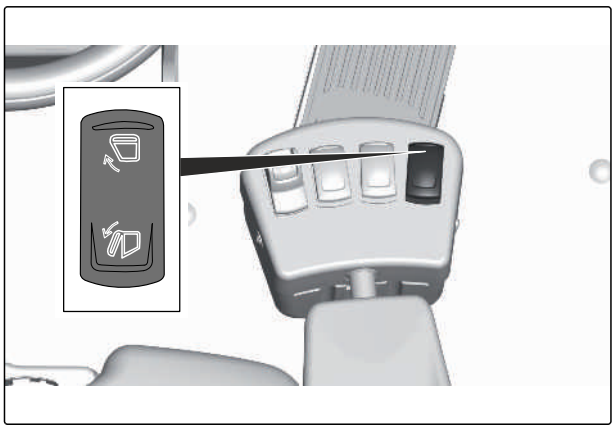
7.4.1 Emptying the grass collector close to the ground

CMS-T-00002641-C.1

1. Completely lower the grass collector.
2. Drive the machine in reverse towards the unloading point.
3. *To tip the grass collector,*

   Press the button.

➡ The grass collector is opened.



CMS-I-00002381

➡ The control lamp lights up as long as the grass collector is tipped and open.

4. Completely empty the grass collector.
5. *To close the grass collector,*

   Press the button.

➡ The control lamp lights up until the grass collector is completely closed.

7.4.2 High tip emptying the grass collector

CMS-T-00002642-C.1

WARNING

Risk of tipping when the grass collector is raised

- Only raise the grass collector on stable and level ground.
- Never raise the grass collector on slopes or inclines.

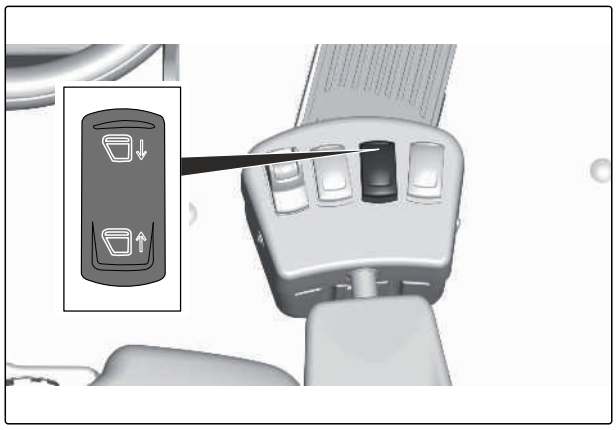
1. Drive the machine in reverse up to 1 m before the unloading point.

NOTE

The maximum height for high tip emptying is 2.50 m.

2. Raise the grass collector by pressing the button.

➡ The control lamp lights up.



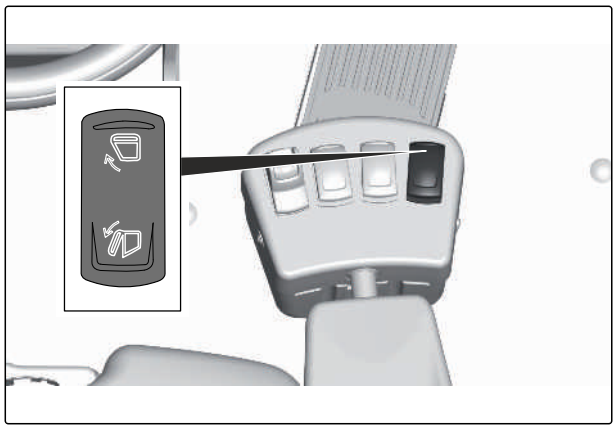
CMS-I-00002380

3. *To tip the grass collector,*

   Press the button.

➡ The grass collector is opened.

➡ The control lamp lights up as long as the grass collector is tipped and open.



CMS-I-00002381

4. Completely empty the grass collector.

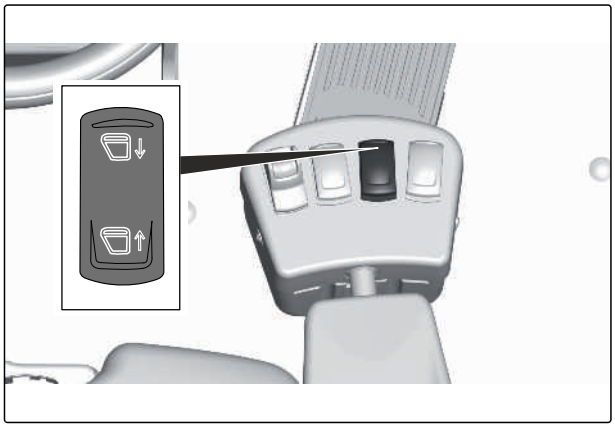
5. *To close the grass collector,*

   Press the button.

➡ The control lamp lights up as long as the grass collector is tipped and open.

6. Lower the grass collector by pressing the button.

➡ The control lamp lights up until the grass collector is completely lowered.



CMS-I-00002379

7.5 Setting the Info display

CMS-T-00003077-B.1

7.5.1 Setting the language

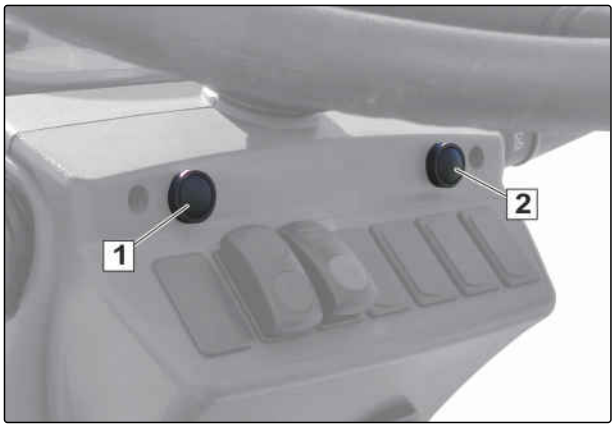
CMS-T-00002686-B.1

1. Sit on the driver's seat.
2. Press and hold the operating buttons 1 and 2.
3. Switch on the ignition.

➡ The language selection appears.

4. Set the language using the 1 button.
5. Turn the ignition key back to position ◯.

➡ The next time the machine is started, the display will be in the selected language.

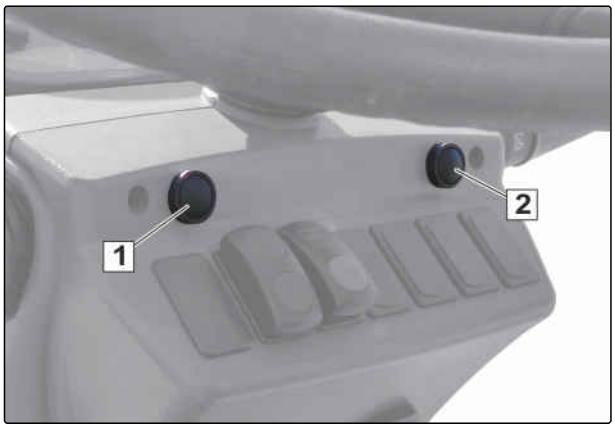


CMS-I-00002392

7.5.2 Setting the clock

CMS-T-00002687-B.1

1. Sit on the driver's seat.
2. Switch on the ignition.
3. Press and hold the operating buttons 1 and 2 for 3 seconds.



CMS-I-00002392

4. Set the time with the buttons .

5. Turn the ignition key back to position ◯ .

➡ The next time the machine is started, the set time will be displayed.

7.5.3 Toggling between normal mode and job mode

CMS-T-00002681-B.1

1. Switching on the ignition

   or

   Start the engine.

2. Press the operating button 1 to toggle.

CMS-I-00002394

NOTE

When the machine is started again, normal mode will be displayed.

7.5.4 Resetting the job mode counter

CMS-T-00002688-B.1

1. Sit on the driver's seat.

2. Switch on the ignition.

3. Press the operating button 1 for 10 seconds.

4. Turn the ignition key back to position ◯ .

CMS-I-00002394

7.5.5 Resetting the maintenance interval

CMS-T-00002757-B.1

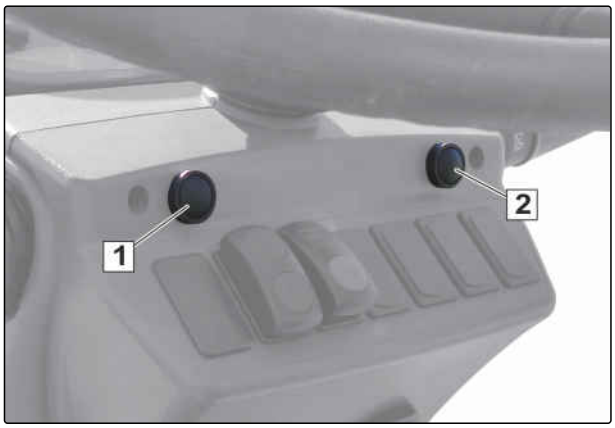
NOTE

The maintenance interval may only be reset by a specialist workshop after maintenance has been performed.

REQUIREMENTS

- ✓ The grass collector is slightly raised, the control lamp lights up.
- ✓ The driver's seat is not occupied.

1. Switch on the ignition.
2. Press the operating buttons **1** and **2** simultaneously 5 times.
3. Lower the grass collector.
4. Switch off the ignition.



CMS-I-00002392

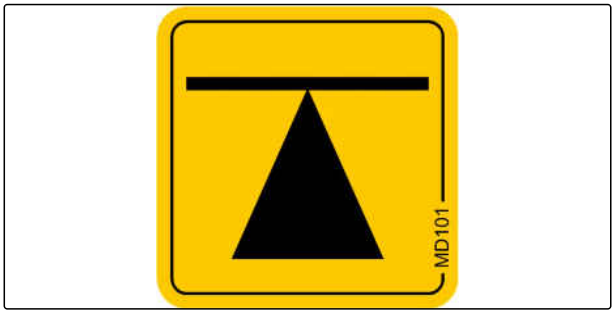
Repairing the machine 8

CMS-T-00002721-F.1

8.1 Lifting the machine

CMS-T-00002758-B.1

Lifting points on the machine are indicated with stickers.



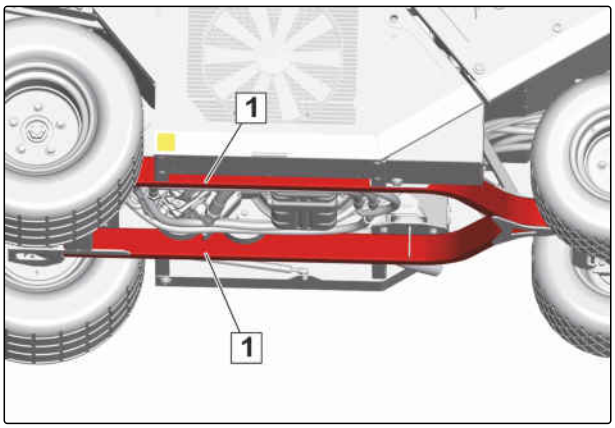
CMS-I-00000431

IMPORTANT

Mchine damage due to incorrect positioning the jack or lifting equipment

- ► Position the jack or lifting equipment only in the marked area on the frame.

1. Position the jack or lifting equipment in the marked areas on the frame [1].
2. Slowly lift the machine.



CMS-I-00002410

8.2 Maintaining the machine

CMS-T-00002740-D.1

8.2.1 Maintenance schedule

After initial operation	
Checking the wheel bolt tightening torques	see page 115
Checking the hydraulic hoses	see page 116

as required	
Refilling the wiper water	see page 127

Every 10 operating hours / as required	
Cleaning the fresh air filter in the cab	see page 129
Clean the cab circulation filter	see page 129

Every 10 operating hours / daily	
Checking the engine coolant fill level	see page 113
Cleaning the radiator	see page 114
Checking the water separator	see page 114

Every 50 operating hours / weekly	
Cleaning the water separator	see page 115
Checking the wheel bolt tightening torques	see page 115
Checking the hydraulic hoses	see page 116
Checking the drive belt	see page 116
Cleaning the air filter	see page 119

Every 200 operating hours / Every 12 months	
Changing the engine oil and oil filter	see page 124

Every 500 operating hours / Every 12 months	
Changing the air filter	see page 120
Checking the battery	see page 121
Replacing the drive belt	see page 122
Changing the hydraulic oil and filter	see page 123
Changing the water separator filter insert	see page 125
Changing the fuel filter	see page 126
Changing the engine coolant	see page 126
Cleaning the diesel tank	see page 127

Every 500 operating hours / Every 12 months	
Checking and replacing the windscreen wiper blade	see page 128
Checking the air conditioning system	see page 128

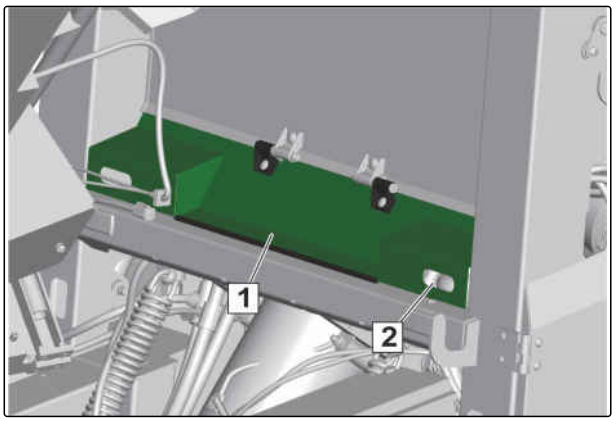
8.2.2 Checking the engine coolant fill level

CMS-T-00002747-B.1

INTERVAL

- Every 10 operating hours
  or
  daily

1. Open the seat carrier.
2. Open the bottom maintenance flap 1 by hand on the opening 2.

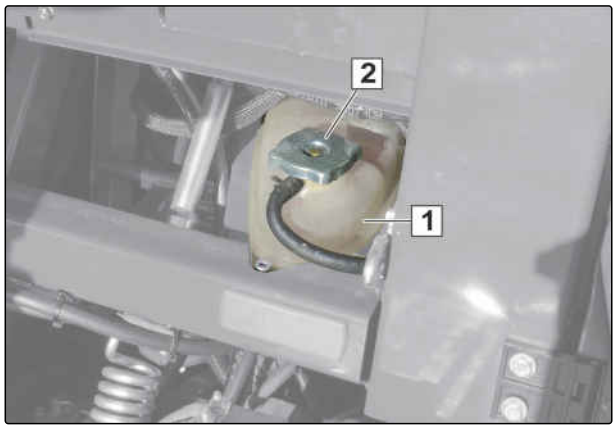


CMS-I-00002357

3. Check the fill level of the engine coolant in the coolant tank 1.

➡ The correct fill level lies between the minimum and maximum marks on the coolant tank.

4. If necessary, refill engine coolant through the filling opening 2.



CMS-I-00002411

Permitted coolants	SAE J814C, J1941, J1034, J2036

5. Close the maintenance flap.
6. Close the seat carrier.

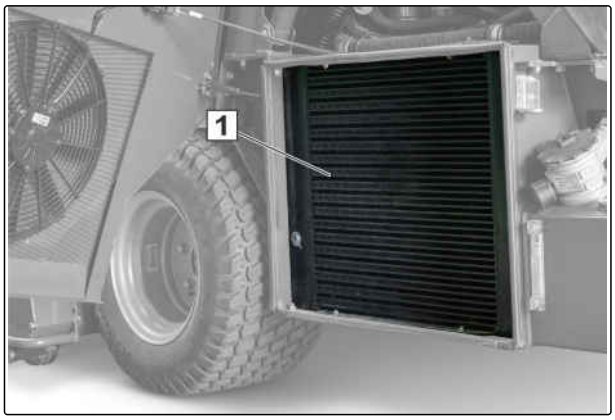
8.2.3 Cleaning the radiator

CMS-T-00002749-B.1

INTERVAL

- Every 10 operating hours
  or
  daily

1. Open the radiator cover.
2. Blow out the radiator fins [1] with compressed air.
3. Close the radiator cover.



CMS-I-00002436

8.2.4 Checking the water separator

CMS-T-00002751-B.1

INTERVAL

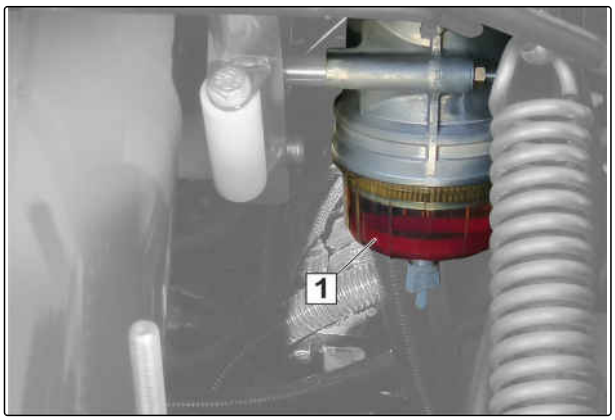
- Every 10 operating hours
  or
  daily

1. Open the seat carrier.
2. Check the position of the red ring [1] in the sight glass.

NOTE

If the red ring is on the floor of the sight glass, there is no water in the fuel. The red ring rises the more water is contained in the fuel.

3. *If the water content in the fuel is too high,* clean the water separator.
4. Close the seat carrier.



CMS-I-00002435

8.2.5 Cleaning the water separator

CMS-T-00002846-B.1

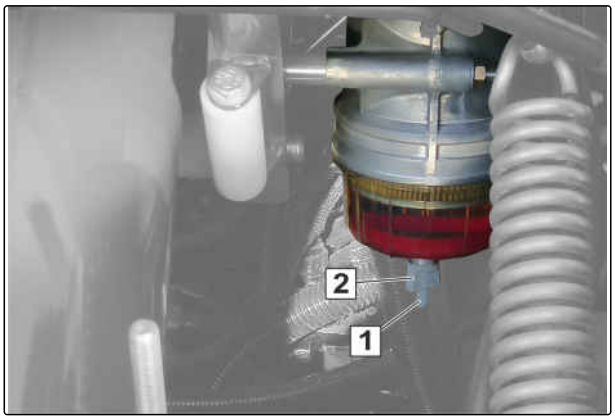
INTERVAL

- Every 50 operating hours

  or

  weekly

1. Open the seat carrier.
2. Slide a hose onto the hose nipple 1.
3. Route the other end of the hose to a suitable collection bucket.
4. Open the drain plug 2.
5. *If pure diesel fuel escapes,*
   close the drain plug.
6. Take off the hose.
7. Dispose of the collected liquid in an environmentally friendly manner.
8. Close the seat carrier.



CMS-I-00002434

8.2.6 Checking the wheel bolt tightening torques

CMS-T-00002752-B.1

INTERVAL

- After initial operation
- Every 50 operating hours

  or

  weekly

Tyres	Tightening torque
Front tyres, 24x12.00-12 6PR	128 Nm
Rear tyres, 20x10.00-10 6PR	80 Nm

▶ Check the wheel bolt tightening torques.

8.2.7 Checking the hydraulic hoses

CMS-T-00002750-B.1

INTERVAL

- After initial operation
- Every 50 operating hours

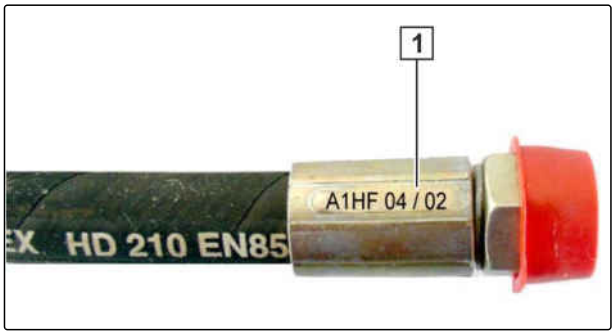
  or

  weekly

NOTE

The hydraulic hoses can be reached through the following access points:

- Engine cover
- Seat carrier
- Under the raised grass collector



CMS-I-00000532

1. Check the hydraulic hoses for damage such as chafing point, cuts, tears and deformation.
2. Check the hydraulic hoses for leaks.
3. Check the date of manufacture 1.

NOTE

Hydraulic hoses may not be older than 6 years.

4. Damaged or aged hydraulic hoses must be immediately replaced by a specialist workshop.
5. Retighten loose bolted connections.

8.2.8 Checking the drive belt

CMS-T-00009590-A.1

INTERVAL

- Every 50 operating hours

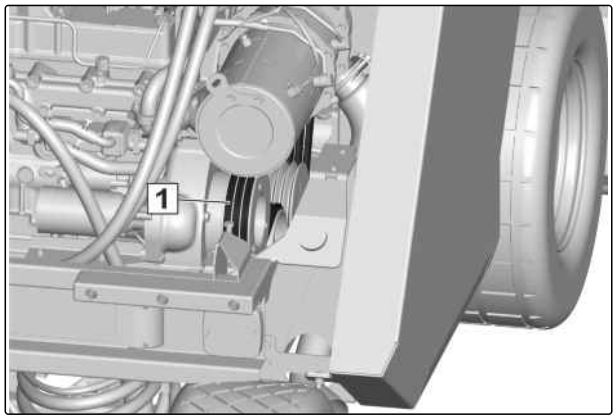
  or

  weekly

The following values are used to check the belt tension on the respective drive belt.

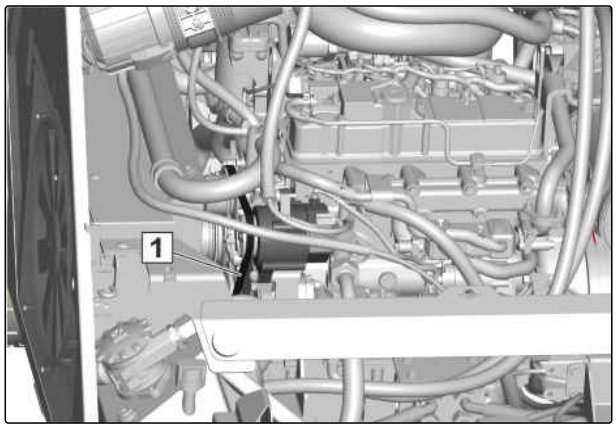
Drive belt	Belt tension upon initial installation	Belt tension after running in
Main drive belt	380 N - 430 N	330 N - 380 N
Fan drive belt	380 N - 430 N	330 N - 380 N
3 drive belts on the cutting deck	380 N - 430 N	330 N - 380 N
1 composite drive belt on the cutting deck	1140 N - 1290 N	990 N - 1140 N
Rotor and cross auger drive belt	250 N - 300 N	200 N - 250 N
Feed auger drive belt	250 N - 300 N	200 N - 250 N

1. Open the engine cover, see page 64.
2. Check the belt tension on all 3 main drive belts [1].
3. Have the belt tension readjusted at a specialist workshop.
4. Check all three main drive belts for damage and wear.
5. Damaged and worn drive belts must be immediately replaced by a specialist workshop.



CMS-I-00002433

6. Check the belt tension on the fan drive belt [1].
7. Have the belt tension readjusted at a specialist workshop.
8. Check the fan drive belt for damage and wear.
9. Damaged and worn drive belts must be immediately replaced by a specialist workshop.
10. Close the engine cover, see page 66.

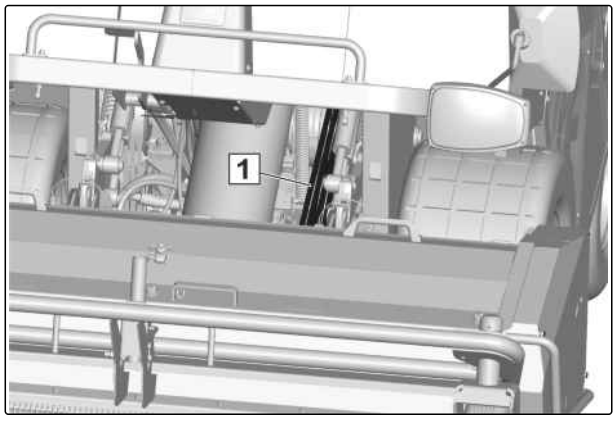


CMS-I-00002737

11. Open the seat carrier, see page 61.
12. Check the belt tension on all 3 cutting deck drive belts [1],

    or

    check the belt tension on the composite drive belt [1] on the cutting deck.
13. Have the belt tension readjusted at a specialist workshop.



CMS-I-00002432

14. Check the cutting deck drive belt for damage and wear.

15. Damaged and worn drive belts must be immediately replaced by a specialist workshop.

16. Close the seat carrier, see page 62.

17. Remove the protective cover 1.

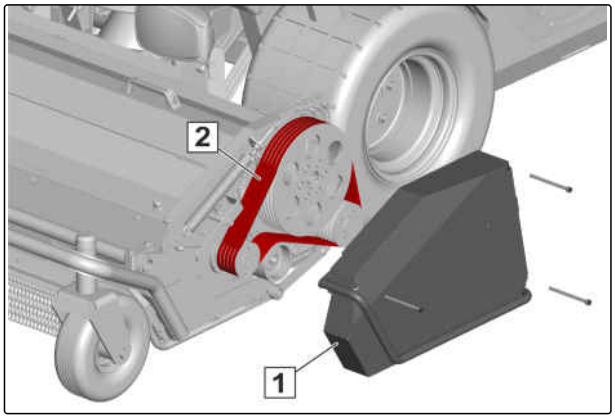
18. Check the belt tension on all 5 rotor drive belts 2.

19. Have the belt tension readjusted at a specialist workshop.

20. Check all 5 rotor drive belts for damage and wear.

21. Damaged and worn drive belts must be immediately replaced by a specialist workshop.

22. Put on the protective cover.



CMS-I-00002431

23. Remove the protective cover 1.

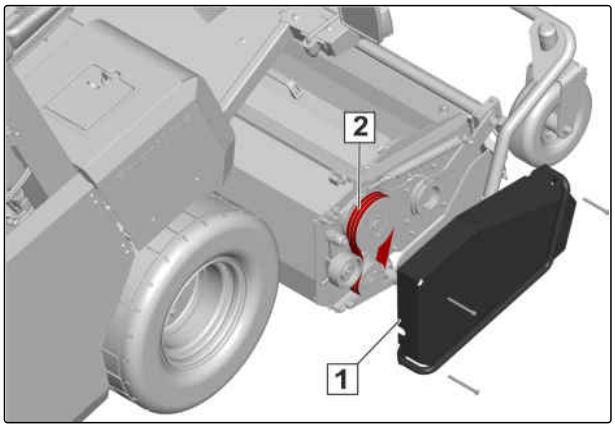
24. Check the belt tension on all 5 feed auger drive belts 2.

25. Have the belt tension readjusted at a specialist workshop.

26. Check all 5 feed auger drive belts for damage and wear.

27. Damaged and worn drive belts must be immediately replaced by a specialist workshop.

28. Put on the protective cover.



CMS-I-00002738

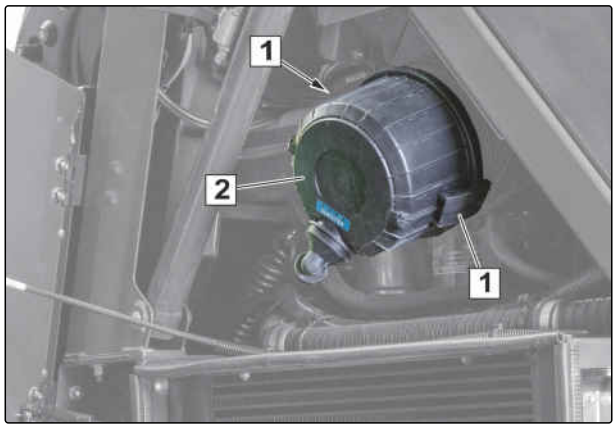
8.2.9 Cleaning the air filter

CMS-T-00002845-B.1

INTERVAL

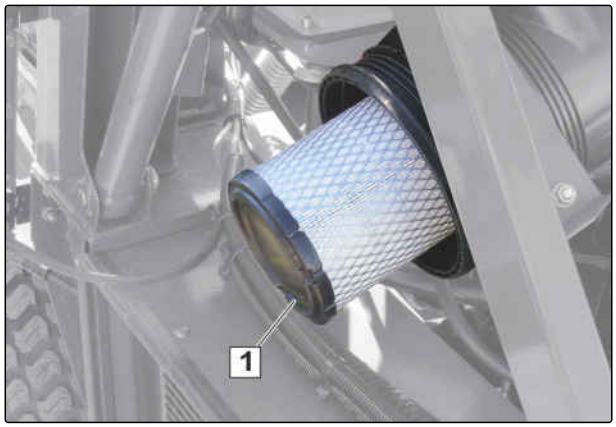
- Every 50 operating hours
  or
  weekly

1. Open the radiator cover.
2. Open the locking mechanisms [1].
3. Remove the air filter lid [2].



CMS-I-00002412

4. Carefully blow out the air filter [1] with compressed air.
5. Put on the air filter lid.
6. Lock the air filter lid.
7. Close the radiator cover.



CMS-I-00002413

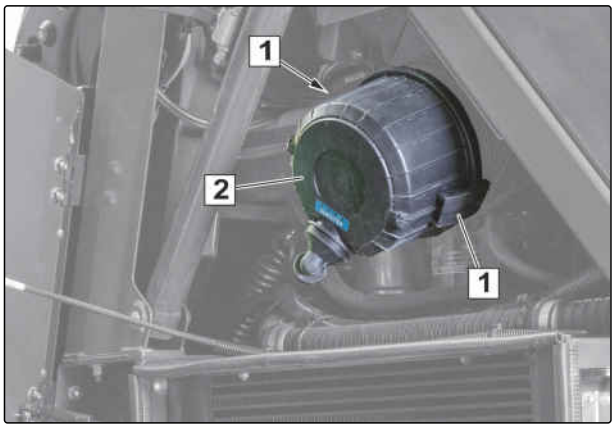
8.2.10 Changing the air filter

CMS-T-00002849-B.1

INTERVAL

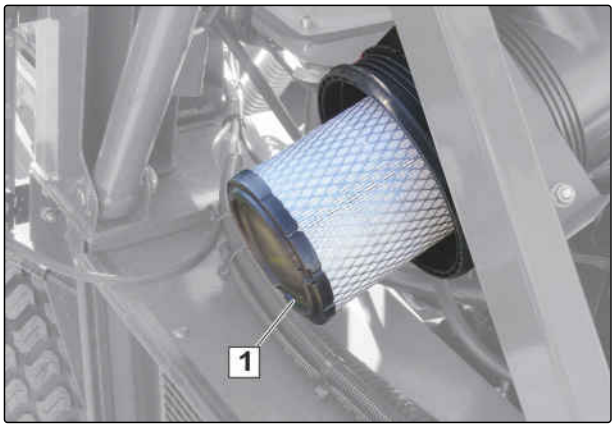
- Every 500 operating hours
  or
  Every 12 months

1. Open the radiator cover.
2. Open the locking mechanisms 1.
3. Remove the air filter lid 2.



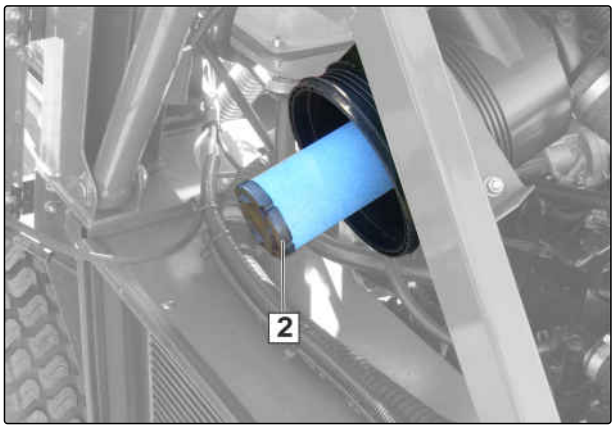
CMS-I-00002412

4. Take out the air filter 1.



CMS-I-00002413

5. Take out the air filter 2 underneath.
6. Replace both air filters.
7. Put on the air filter lid and lock it.
8. Close the radiator cover.



CMS-I-00002917

8.2.11 Checking the battery

CMS-T-00002744-B.1

INTERVAL

- Every 500 operating hours

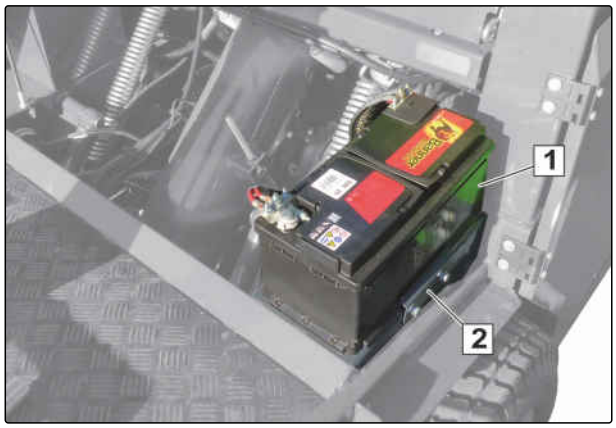
  or

  Every 12 months

1. Open the seat carrier.

2. Check the voltage of the battery [1] at rest.

Voltage	Battery status
12.65 V - 12.8 V	The battery is fully charged.
12.6 V - 12.4 V	The battery is half charged.
< 12 V	The battery is discharged.



CMS-I-00002419

3. Depending on the battery voltage, the battery must be charged

   or

   replaced.

4. *To take out the battery,*
   remove the bracket [2].

5. *When the new battery is installed,*
   reinstall the bracket [2].

6. Close the seat carrier.

8.2.12 Replacing the drive belt

CMS-T-00002843-C.1

INTERVAL

- Every 500 operating hours

  or

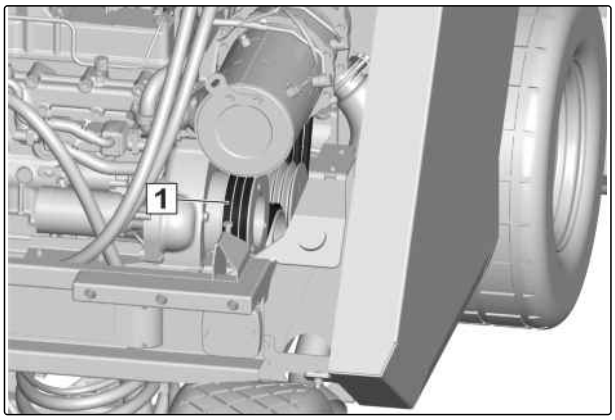
  Every 12 months

IMPORTANT

Risk of machine damage.

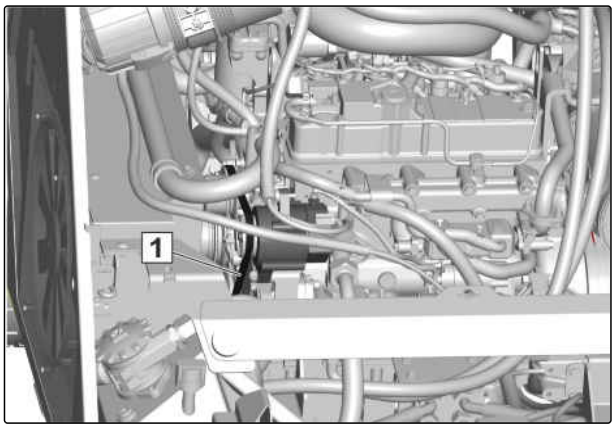
► Only have the drive belts replaced or adjusted by a qualified specialist workshop.

1. Replace all 3 main drive belts [1].



CMS-I-00002433

2. Replace the fan drive belt [1].

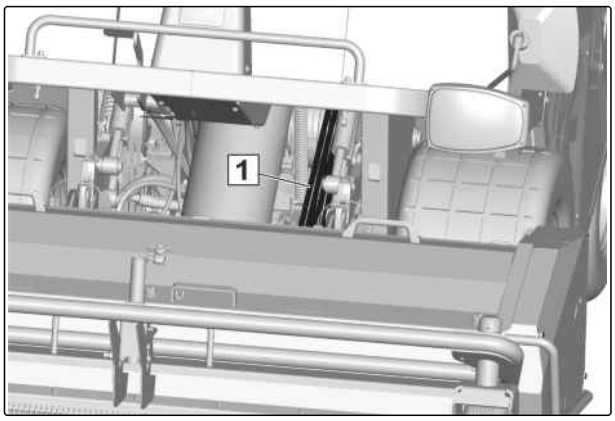


CMS-I-00002737

3. Replace all 3 cutting deck drive belts [1].

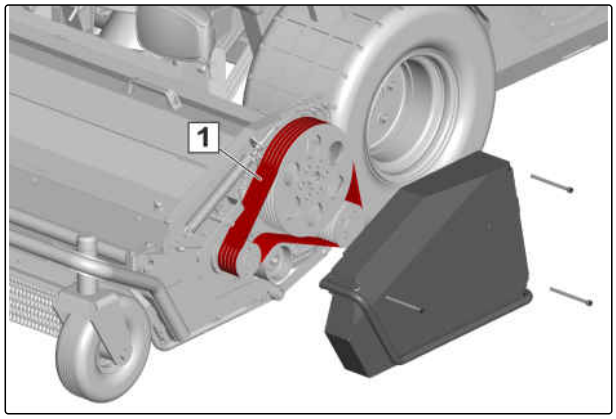
   or

   Replace the composite drive belt.



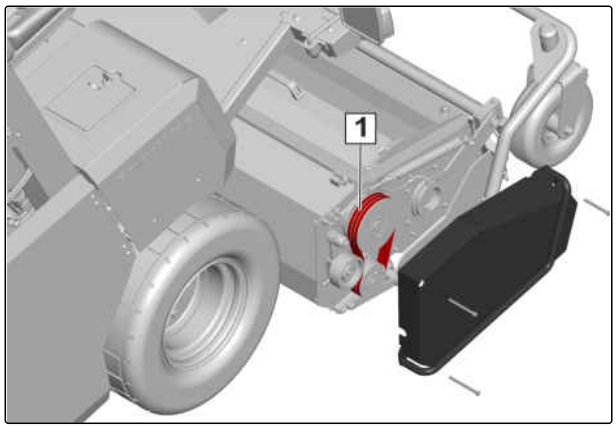
CMS-I-00002432

4. Replace all 5 drive belts 1.



CMS-I-00002919

5. Replace all 3 drive belts 1.



CMS-I-00002918

8.2.13 Changing the hydraulic oil and filter

CMS-T-00002748-B.1

INTERVAL

- Every 500 operating hours

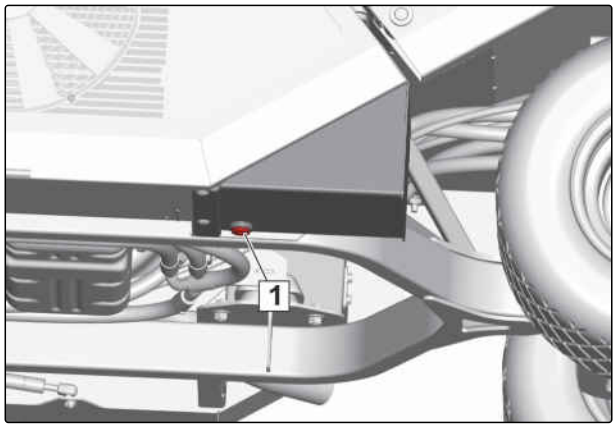
  or

  Every 12 months

1. Drain the hydraulic oil through the drain screw 1.

2. Collect the hydraulic oil in a suitable collection bucket and dispose of in an environmentally friendly manner.

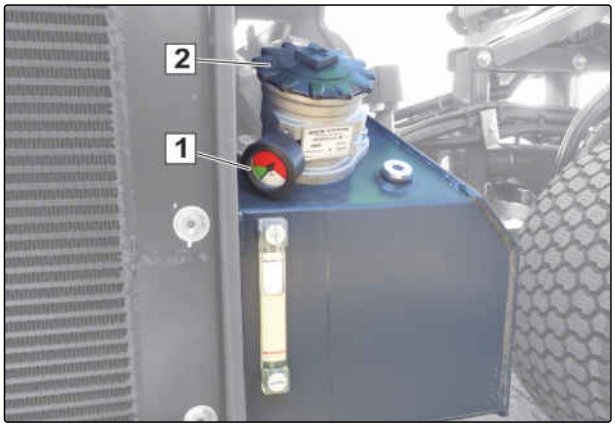
3. Tighten the drain screw with a new gasket.



CMS-I-00002416

The contamination indicator 1 shows the degree of contamination of the hydraulic oil filter.

4. Open the radiator cover.
5. Unscrew the lid 2.
6. Remove the filter insert.
7. Put in a new filter insert.
8. Screw on the lid.



CMS-I-00002418

9. Fill fresh hydraulic oil through the filling screw 1.

Hydraulic oil fill quantity	Hydraulic oil type
23 litres	DIN 51524 HVLP 68

10. Close the radiator cover.
11. After restarting the machine, check the hydraulic oil level again.

CMS-I-00002437

8.2.14 Changing the engine oil and oil filter

CMS-T-00002847-B.1

INTERVAL

- Every 200 operating hours

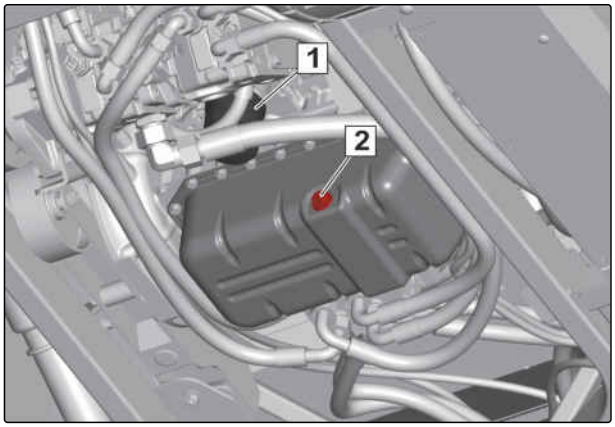
  or

  Every 12 months

IMPORTANT

Risk of machine damage

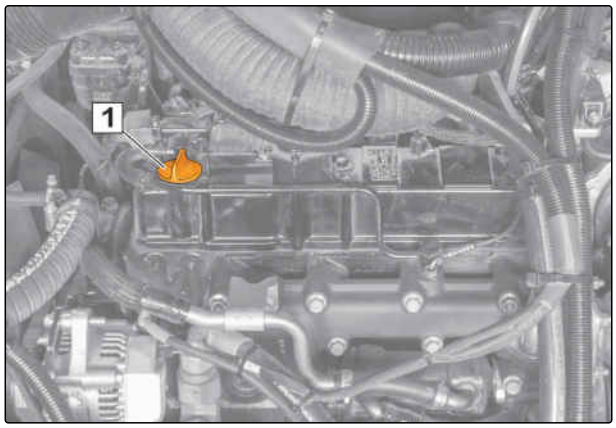
- ▶ Only have work on the engine and its components performed by a qualified specialist workshop.
- ▶ For work on the engine and its components, observe the operating manual of the engine manufacturer.



CMS-I-00002415

1. Always replace the oil filter [1] when changing the oil.
2. Drain the engine oil through the drain screw [2] into a suitable collection bucket.
3. Dispose of the engine oil in an environmentally friendly manner.
4. Screw on the drain screw with a new gasket.
5. Fill fresh engine oil through the filling opening [1].

Engine oil fill quantity	Permitted engine oil
7 litres	15W40 API-CJ-4 ACEA E6



CMS-I-00002414

8.2.15 Changing the water separator filter insert

CMS-T-00002848-B.1

INTERVAL

- Every 500 operating hours

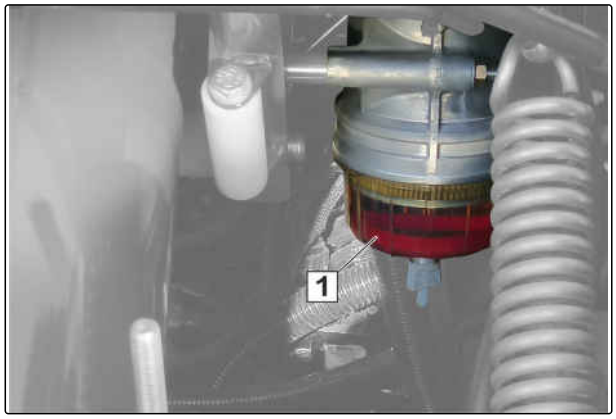
  or

  Every 12 months

IMPORTANT

Risk of machine damage

- ▶ Only have work on the engine and its components performed by a qualified specialist workshop.
- ▶ For work on the engine and its components, observe the operating manual of the engine manufacturer.



CMS-I-00002435

▶ Change the filter insert in the water separator [1].

8.2.16 Changing the fuel filter

CMS-T-00002850-B.1

INTERVAL

- Every 500 operating hours

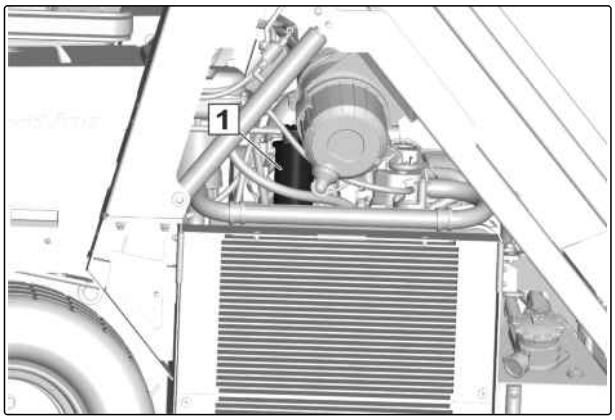
  or

  Every 12 months

IMPORTANT

Risk of machine damage

- ▶ Only have work on the engine and its components performed by a qualified specialist workshop.
- ▶ For work on the engine and its components, observe the operating manual of the engine manufacturer.



CMS-I-00002429

▶ Change the fuel filter 1.

8.2.17 Changing the engine coolant

CMS-T-00002842-B.1

INTERVAL

- Every 500 operating hours

  or

  Every 12 months

IMPORTANT

Risk of machine damage

- ▶ Only have work on the engine and its components performed by a qualified specialist workshop.
- ▶ For work on the engine and its components, observe the operating manual of the engine manufacturer.

▶ Change the engine coolant.

8.2.18 Cleaning the diesel tank

CMS-T-00002844-B.1

INTERVAL

- Every 500 operating hours

  or

  Every 12 months

IMPORTANT

Risk of machine damage

- ▶ Only have work on the engine and its components performed by a qualified specialist workshop.
- ▶ For work on the engine and its components, observe the operating manual of the engine manufacturer.

1. Clean the diesel tank.
2. Dispose of collected fuel in an environmentally friendly manner.

8.2.19 Refilling the wiper water

CMS-T-00006649-A.1

INTERVAL

- as required

1. Open the seat carrier.
2. Unscrew the lid [1].
3. Fill the hopper with a mixture of water and wiper fluid.
4. Screw on the lid.
5. Check the windscreen washer system for proper function.

CMS-I-00004735

8.2.20 Checking and replacing the windscreen wiper blade

CMS-T-00006650-A.1

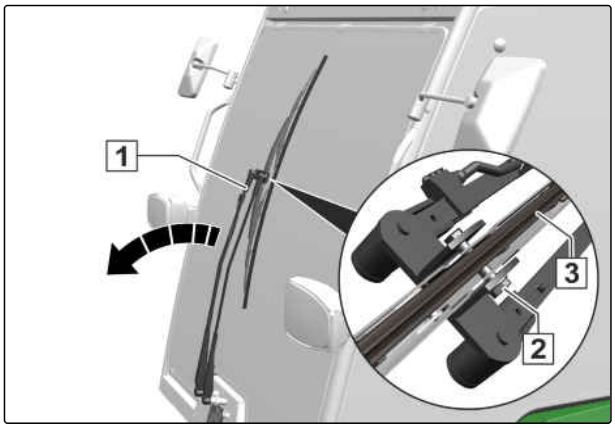
INTERVAL

- Every 500 operating hours

  or

  Every 12 months

1. Check the wiper blade for wear and damage.
2. Replace damaged and worn wiper blades immediately.
3. *If the wiper blade needs to be replaced,* fold the windscreen wiper arm [1] all the way to the front.
4. Unscrew the bolt [2].
5. Replace the wiper blade [3] and screw in the bolt.
6. Carefully fold the windscreen wiper arm back onto the windscreen.



CMS-I-00004736

8.2.21 Checking the air conditioning system

CMS-T-00006651-A.1

INTERVAL

- Every 500 operating hours

  or

  Every 12 months

IMPORTANT

Risk of implement damage

- ▶ Only have work on the air conditioning system and the coolant circuit performed by a qualified specialist workshop.
- ▶ For work on the air conditioning system, observe the operating manual and maintenance instructions of the cab manufacturer.

1. Check the hose lines for damage.
2. Perform a leak test on the coolant circuit.
3. Perform a functional check on the air conditioning system.

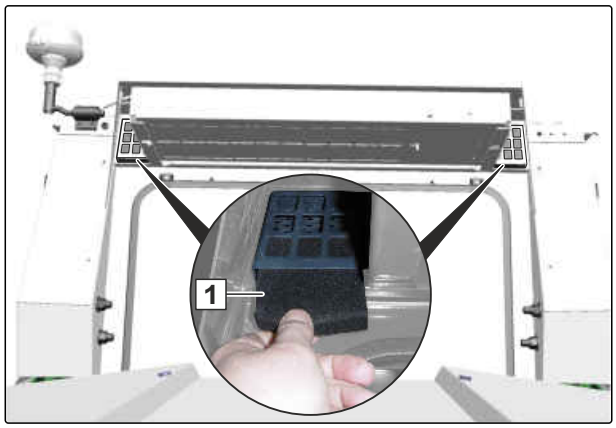
8.2.22 Cleaning the fresh air filter in the cab

CMS-T-00006652-A.1

INTERVAL

- Every 10 operating hours
  or
  as required

1. Pull the filter foam [1] out of the grating.
2. Clean the filter foam with compressed air.
3. Replace damaged filter foam.
4. Slide the filter foam into the grating.



CMS-I-00004737

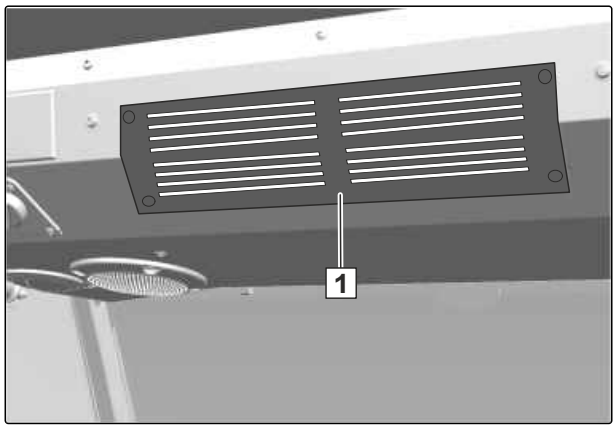
8.2.23 Clean the cab circulation filter

CMS-T-00006653-A.1

INTERVAL

- Every 10 operating hours
  or
  as required

1. Check the circulation filter [1] for soiling.
2. Clean or blow off the circulation filter with compressed air.



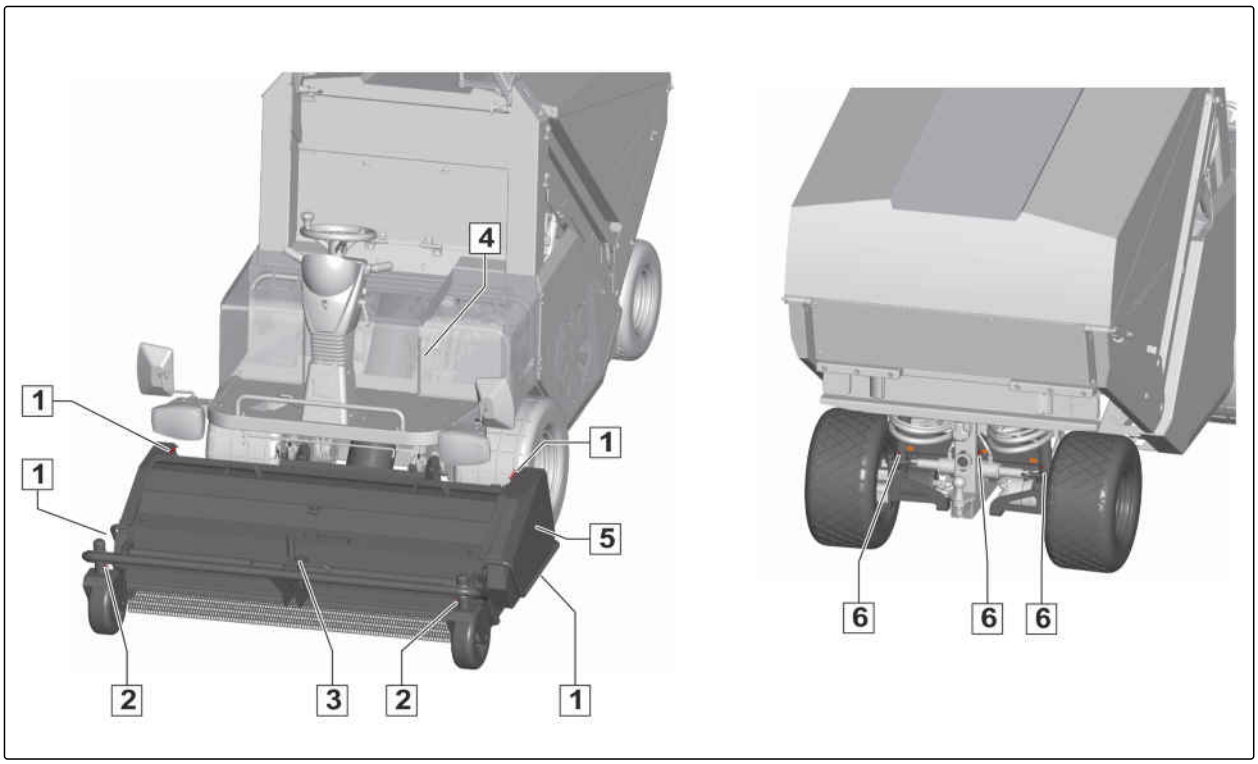
CMS-I-00004738

8.3 Lubricating the machine

CMS-T-00002734-A.1

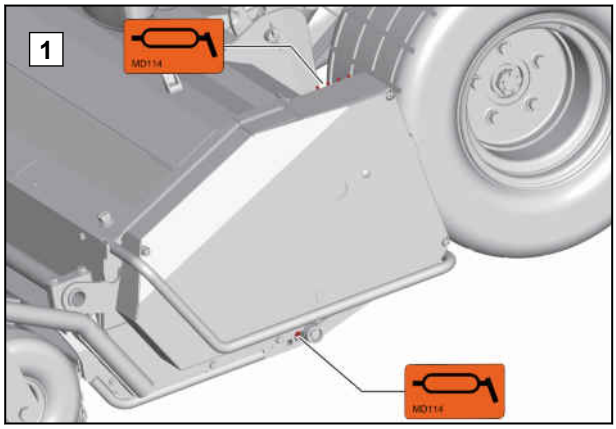
8.3.1 Overview of lubrication points

CMS-T-00002735-A.1



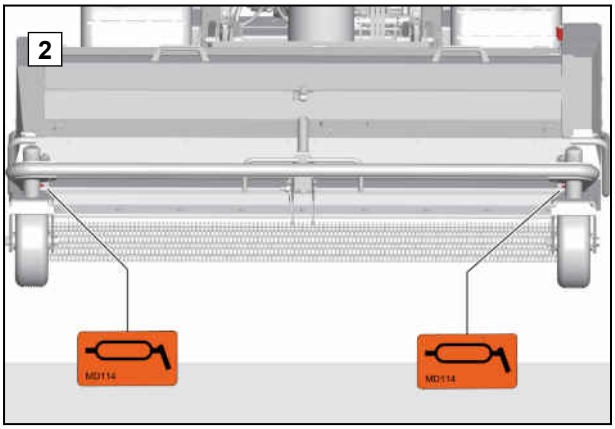
CMS-I-00002426

Every 10 operating hours / daily

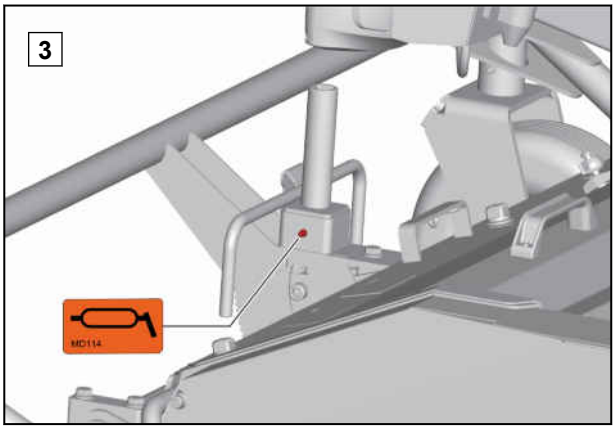


CMS-I-00002424

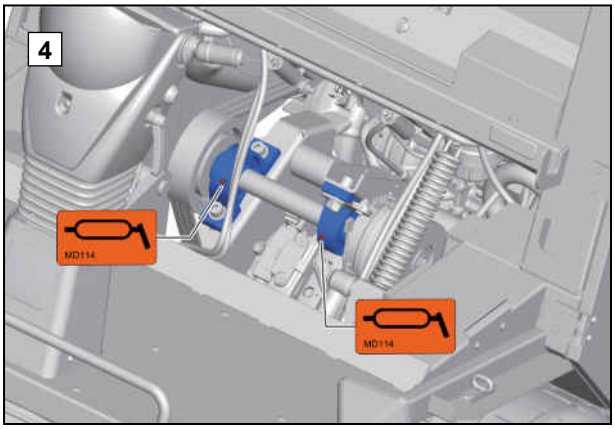
Every 50 operating hours / weekly



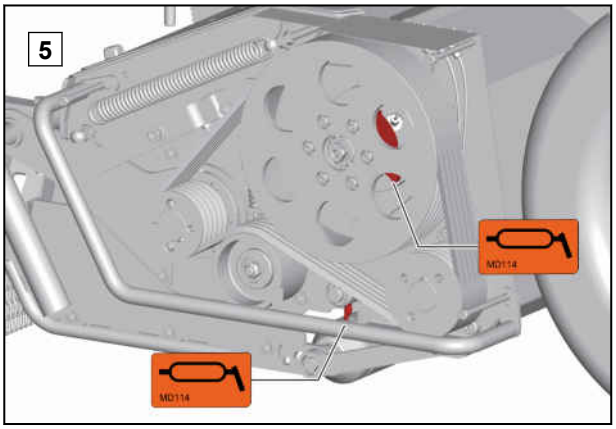
CMS-I-00002422



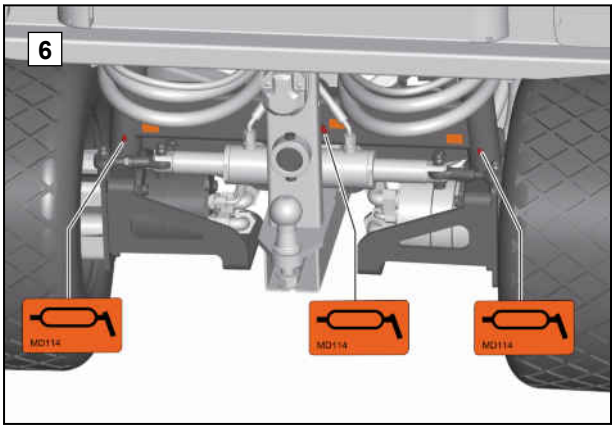
CMS-I-00002421



CMS-I-00002427



CMS-I-00002425



CMS-I-00002423

8.4 Eliminating faults

CMS-T-00002723-D.1

Error code	Symbol	Errors	Cause	Solution
		Defective lighting for road travel	Lamp or lighting supply line is damaged.	see page 136
		Defective fuse	Failure of an electric function on the machine.	see page 136
		Defective fuse in the cab	Failure of an electric function in the cab.	see page 137
		Fault warning lamp is lit	There is a fault on the machine	see page 138
		Warning lamp for engine fault is lit	Fault on the diesel engine	▶ Stop working with the machine immediately. ▶ Have engine faults repaired by a qualified specialist workshop.
1, 7		Warning lamp for battery voltage is lit	Battery voltage is too low.	▶ Check the voltage of the battery according to the Maintenance section. ▶ Replace defective battery.
2, 8		Warning lamp for battery overvoltage is lit	Battery voltage is too high.	▶ Check the voltage of the battery according to the Maintenance section. ▶ Check the alternator and charge controller.
CAN DM1		Engine fault error message appears	There is a fault on the diesel engine	▶ Stop working with the machine immediately. ▶ Have engine faults repaired by a qualified specialist workshop.
101, 102, 131, 132, 161, 162, 191, 192, 341, 371, 401		Right pump control error appears	Fault in the electronics	▶ Stop working with the machine immediately. ▶ Have the fault eliminated by a qualified specialist workshop.
103, 104, 133, 134, 163, 164, 193, 194		Left pump control error appears	Fault in the electronics	▶ Stop working with the machine immediately. ▶ Have the fault eliminated by a qualified specialist workshop.

Error code	Symbol	Errors	Cause	Solution
4041, 4051, 4061		Pedal sensor error appears	Fault on the pedal sensor	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
4233, 4234		Rotor switch error appears	Fault on the rotor switch	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
4235, 4236		Cruise control switch error appears	Fault on the cruise control switch	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
4251, 4252, 4260, 4236		Steering angle sensor error appears	Fault on the steering angle sensor	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
6001, 6052, 6061, 6062, 6066, 6667	CAN	CAN communication error appears	Fault with the communication of the CAN components	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
3, 4, 5, 6		ECU power supply error appears	Fault with the ECU power supply	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
10, 11, 12, 13, 14		5 V deviation on the ECU appears	Fault with the ECU power supply	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.

Error code	Symbol	Errors	Cause	Solution
20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 40, 42, 50		ECU internal error appears	Fault on the ECU	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
4201		Direction of travel selection lever error appears	Fault on the selector lever for the direction of travel	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
4213		Hydraulic oil temperature error message appears	Hydraulic oil temperature is too high	► Stop working with the machine immediately. ► Clean the radiator. ► Allow the machine to cool down. ► *If the error message appears again,* have the fault repaired by a qualified specialist workshop.
4216		Seat switch error appears	Fault on the seat switch	► Stop working with the machine immediately. ► Have the fault eliminated by a qualified specialist workshop.
6251		Warning lamp for hydraulic oil level is lit	The hydraulic oil level is too low	► Stop working with the machine immediately. ► Check the hydraulic oil level. ► refill the hydraulic oil.

Error code	Symbol	Errors	Cause	Solution
8008		Engine overheating error message appears	Engine temperature is too high	▶ Stop working with the machine immediately. ▶ Clean the radiator. ▶ Check the engine coolant fill level. ▶ *If the engine coolant fill level is too low,* top up the engine coolant. ▶ *If the engine coolant fill level drops again,* have the engine cooling system checked by a qualified specialist workshop.
8009		Engine oil pressure error message appears	The engine oil pressure is too high or too low	▶ Stop working with the machine immediately. ▶ Have the fault eliminated by a qualified specialist workshop.
8506		Blockage on the cutting deck, warning lamp is lit.	A foreign object or clippings are blocking the cross auger	see page 139
			A foreign object or clippings are blocking the feed auger	see page 139
			Foreign object is blocking the rotor	▶ Open the rotor protective cover. ▶ Remove foreign objects. ▶ Close the rotor protective cover.

Defective lighting for road travel

CMS-T-00002724-C.1

NOTE

Only the lamps for the front headlights can be replaced. All other lights are equipped with LED lamps.

CMS-I-00002409

Position number	Designation	Lamp
1	Turn signal	PY21W 12V
2	Parking light	W5W 12V
3	Dipped headlights	H4 60/55W 12V

1. Replace the lamp.

2. Check the lighting supply line.

3. Replace defective lighting supply lines.

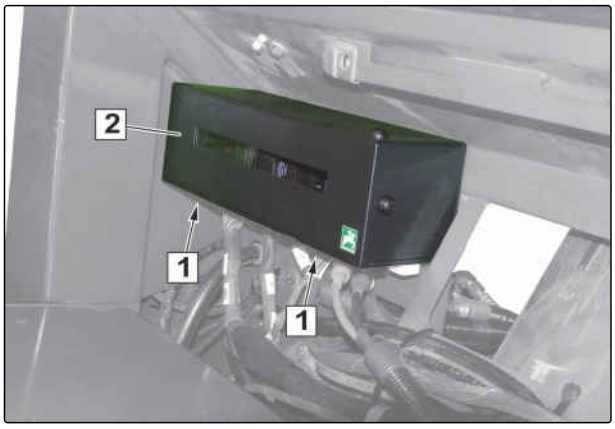
Defective fuse

CMS-T-00003072-C.1

1. Open the electrical system maintenance flap.

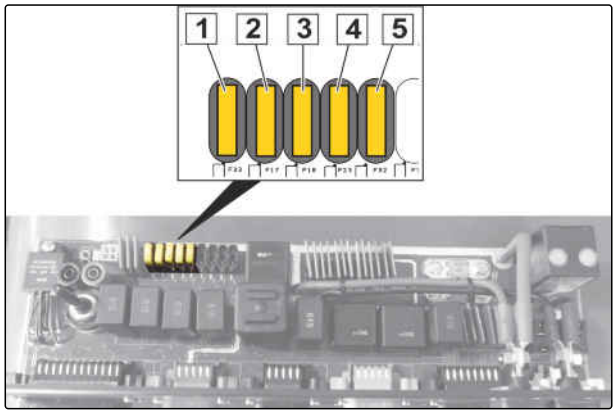
2. Unscrew the screws 1 at the bottom of the fuse box.

3. Push off the cover 2 towards the right.



CMS-I-00002395

Position	Fuse	Use	Rated current
1	F33	EGR valve	20 A
2	F17	Machine control unit	20 A
3	F18	Machine control unit	20 A
4	F23	Ignition	20 A
5	F32	Engine control unit	20 A



CMS-I-00002389

4. Replace defective fuses.
5. Push the cover onto the fuse box.
6. Screw on the screws at the bottom.
7. Close the electrical system maintenance flap.

Defective fuse in the cab

CMS-T-00006654-A.1

1. Fold open the cover.

Position	Fuse	Use	Rated current
1	F1	Interior lighting and radio (terminal 30)	7.5 A
2	F2	Front work floodlights	5 A
3	F3	Axial fan of the air conditioning system	25 A
4	F4	Fan	15 A
5	F5	Windscreen wipers and washing system	10 A

CMS-I-00004739

Position	Fuse	Use	Rated current
6	F6	Air conditioner compressor and radio (terminal 15)	10 A
7	F8	Control of the air conditioning system and heater	5 A

2. Replace defective fuses.

3. Close the cover on the fuse box.

Fault warning lamp

CMS-T-00003728-B.1

The fault warning lamp lights up in conjunction with another warning lamp or error message.

1. Secure the machine.

2. Identify the fault according to the other warning lamp

   or

   Identify the fault according to the error message.

3. Eliminate the fault

   or

   Have the fault eliminated by a qualified specialist workshop.

8506

Cutting deck blocked warning lamp

CMS-T-00003070-C.1

1. Open the rotor protective cover.
2. Unlock the locking mechanism [1] with the special key.
3. Pull out the cover sheet.

➡ The side opening for the crank is open.

4. Take the crank [2] out of the bracket on the cutting deck.
5. Push the crank through the opening on the shaft of the cross auger.
6. *To remove foreign objects or blockages,* turn the crank.
7. Remove foreign objects.
8. Close the rotor protective cover.
9. Insert the crank in the bracket on the cutting deck.

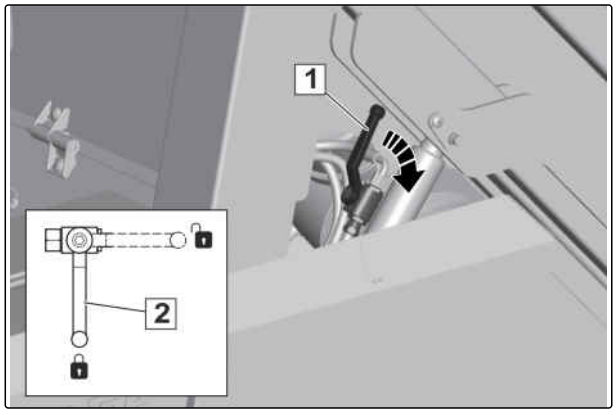
CMS-I-00002387

WARNING

Risk of tipping when the grass collector is raised

- Only raise the grass collector on stable and level ground.
- Never raise the grass collector on slopes or inclines.

1. Completely raise the grass collector.
2. *To secure the grass collector against uncontrolled lowering,* turn the ball valve [1] on the left and right side to position [2].
3. Switch off the engine.
4. Remove the ignition key.
5. Apply the parking brake.



CMS-I-00002350

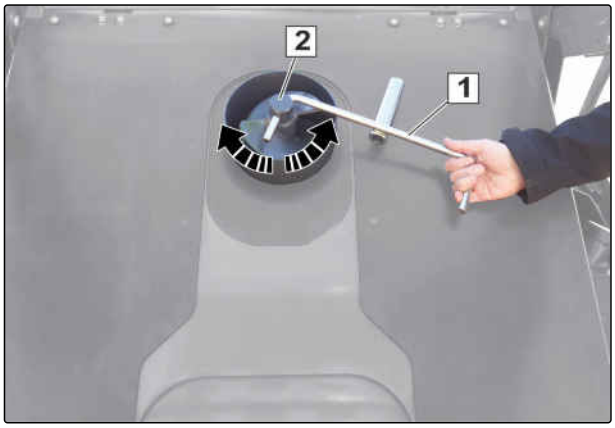
6. Take the crank [1] out of the bracket on the cutting deck.

7. Push the bent part of the crank through the hole in the feed auger [2].

8. *To remove foreign objects or blockages,* turn the crank to the left or right.

9. Remove foreign objects.

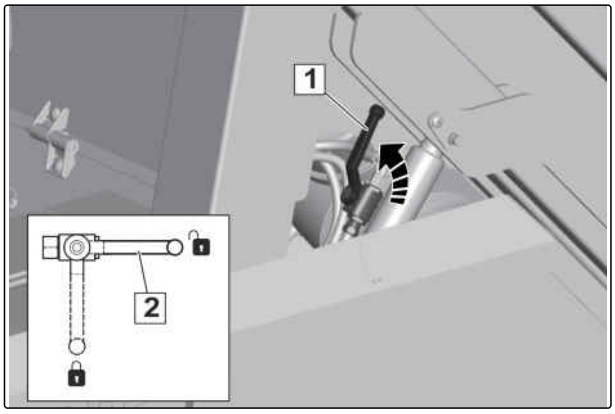
10. Insert the crank in the bracket on the cutting deck.



CMS-I-00002388

11. *To unlock the grass collector,* turn the ball valve [1] on the left and right side to position [2].

12. Completely lower the grass collector.



CMS-I-00002349

1. Open the rotor protective cover.

2. Remove foreign objects.

3. Close the rotor protective cover.

8.5 Cleaning the implement

CMS-T-00002722-C.1

IMPORTANT

Risk of machine damage due to cleaning jet of the high-pressure nozzle

- Never direct the cleaning jet of the high-pressure cleaner or hot water high-pressure cleaner onto the marked components.
- Never aim the cleaning jet of high-pressure cleaners or hot water high-pressure cleaners on electrical or electronic components.
- Never aim the cleaning jet of the high pressure cleaner directly on lubrication points, bearings, rating plates, warning signs, and stickers.
- Always maintain a minimum distance of 300 mm between the high-pressure nozzle and the machine.
- Do not exceed a water pressure of 120 bar.

CMS-I-00002692

IMPORTANT

Fire hazard

- Remove grass residues in the area of the engine and exhaust system.

1. Park and secure the machine on a level surface.
2. Clean the radiator only with compressed air.
3. Remove grass residues in the area of the engine and exhaust system only with compressed air.
4. Clean the machine with a high-pressure cleaner or a hot water high-pressure cleaner.

Transporting the machine 9

CMS-T-00002694-C.1

9.1 Loading the implement with a crane

CMS-T-00002737-C.1

The machine without a cab has 2 attachment points for slings.

CMS-I-00002438

NOTE

The machine with a cab cannot be loaded with a crane.

WARNING

Risk of accidents due to improperly attached slings for lifting

If the slings are not attached at the marked lashing points, the implement can be damaged during lifting and endanger safety.

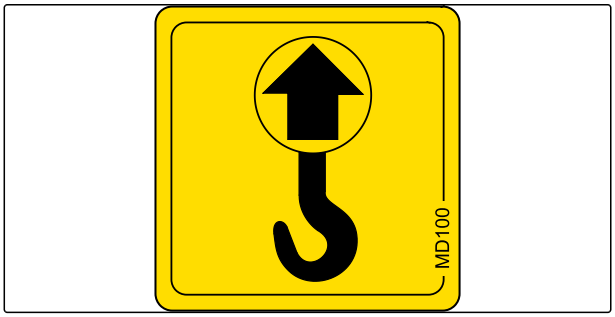
- ▶ Only attach the slings for lifting at the marked lashing points.
- ▶ *To determine the required load-bearing capacity of the slings,* observe the specifications in the following table.

Required load-bearing capacity	1000 kg

REQUIREMENTS

- ✓ The grass collector is completely empty.
- ✓ The grass collector is completely lowered.
- ✓ The machine is secured.

1. Only attach the lifting gear at the marked positions.
2. Hang the slings on the crane with a crossbeam.
3. Load the machine with a crane.



CMS-I-000089

9.2 Moving the implement with a transport vehicle

CMS-T-00002738-C.1

WARNING

Danger when loading and transporting the machine

Risk of serious injuries

- ▶ Do not drive the machine onto a transport vehicle when on a slope or incline.
- ▶ Only load the machine when the grass collector is completely empty and lowered.
- ▶ Load the machine forwards in the direction of travel of the transport vehicle.

The machine without a cab has 2 lashing points for securing the load.

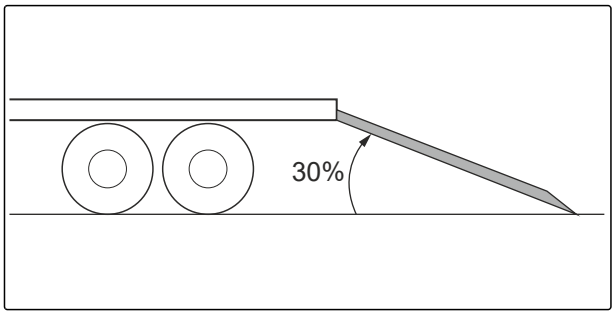
CMS-I-00002440

The machine with a cab has 4 lashing points for securing the load.

CMS-I-00004740

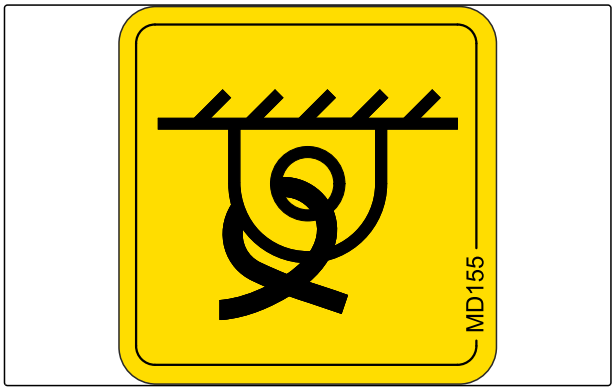
CMS-I-00004741

1. Position non-slip ramps at a maximum inclination of 30%.
2. Drive the machine slowly and carefully onto the trailer or HGV.
3. Switch of the engine and apply the parking brake.



CMS-I-00002439

4. Only attach lashing straps at the marked points.
5. Secure the implement in accordance with the regulations to the transport vehicle.



CMS-I-00000450

9.3 Towing the machine

CMS-T-00002707-B.1

CAUTION

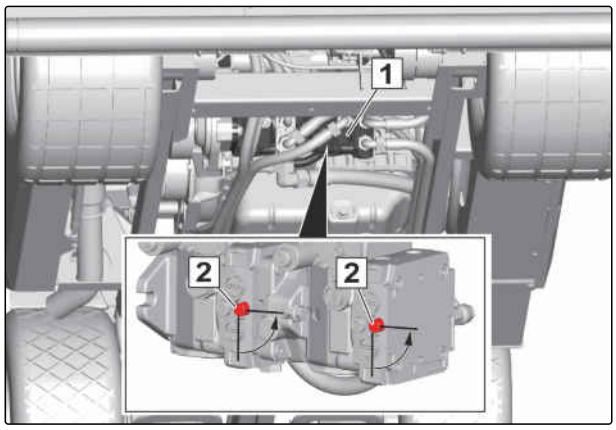
Loss of brake properties when the bypass valve is open

Risk of injury and accident

- ▶ Only tow the machine on level ground at low speed.
- ▶ Do not tow the machine on public roads.
- ▶ Only tow the machine for short distances.

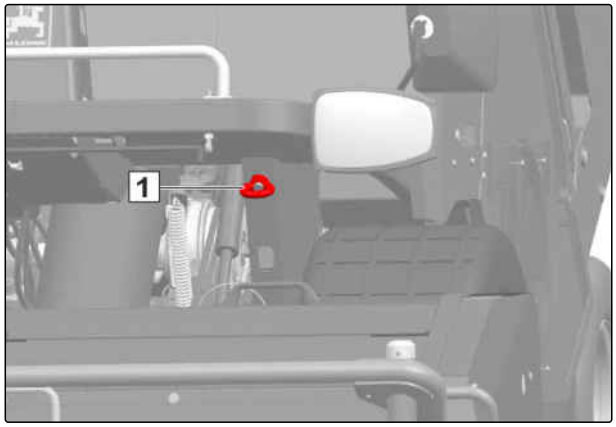
1. Raise the cutting deck.
2. Take the Allen key from the thread pack.
3. Loosen the bolts 2 on the hydraulic pump 1 by half a turn.

➡ The bypass valves are open. The machine can be towed.



CMS-I-00002417

4. Attach the towline to the towing eye 1.
5. After towing, close the bypass valve again.
6. After towing, apply the parking brake.



CMS-I-00002430

Parking the machine 10

CMS-T-00002695-C.1

10.1 Parking the implement after operation

CMS-T-00003942-A.1

1. Completely empty the grass collector and lower it completely.
2. Completely lower the cutting deck.

IMPORTANT Fire hazard

- ▶ Remove grass residues in the area of the engine and exhaust system.

3. Clean the machine.

10.2 Preparing the machine for longer periods of standstill or overwintering

CMS-T-00002811-C.1

1. Completely empty the grass collector.
2. Clean the machine.
3. Grease all lubrication points.
4. Empty the fuel tank.
5. Disconnect and remove the battery.
6. Store the battery in a dry and frost-free place.
7. Check the condition of the drive belts.
8. If necessary, have the drive belts replaced by a qualified specialist workshop.
9. Make sure that there is enough antifreeze in the engine cooling system.

10. Fill the wiper water container with wiper fluid with anti-freeze.

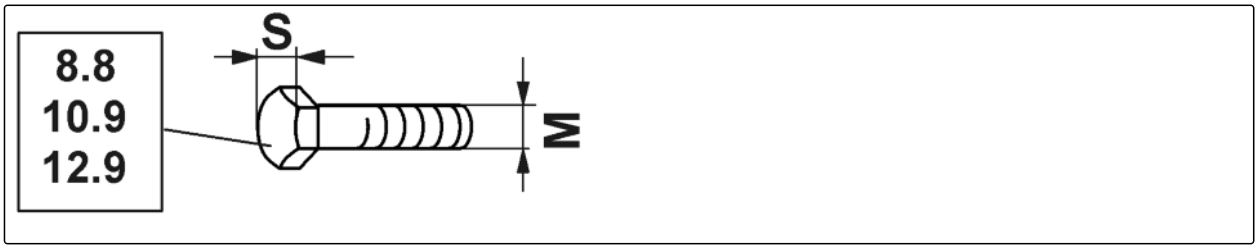
11. Store the machine in a dry place.

Appendix 11

CMS-T-00002703-C.1

11.1 Bolt tightening torques

CMS-T-00000373-B.1



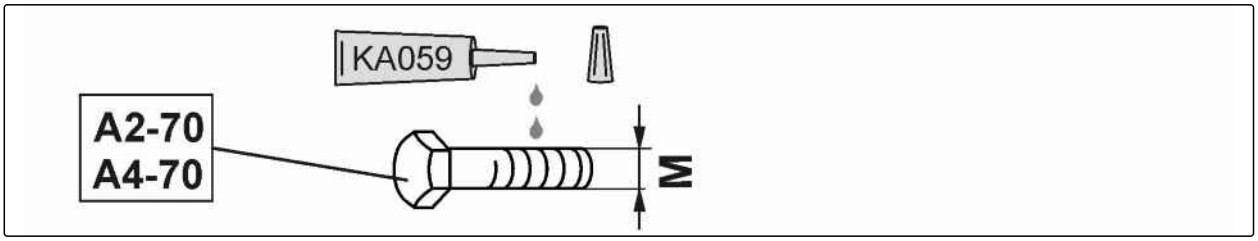
CMS-I-000260

NOTE

Unless specified otherwise, the bolt tightening torques listed in the table apply.

M	S	Nm		
		8.8	10.9	12.9
M8	13	25	35	41
M8x1		27	38	41
M10	16(17)	49	69	83
M10x1		52	73	88
M12	18(19)	86	120	145
M12x1.5		90	125	150
M14	22	135	190	230
M 14x1.5		150	210	250
M16	24	210	300	355
M16x1.5		225	315	380
M18	27	290	405	485
M18x1.5		325	460	550
M20	30	410	580	690
M20x1.5		460	640	770

M	S	Nm		
		8.8	10.9	12.9
M22	32	550	780	930
M22x1.5		610	860	1050
M24	36	710	1000	1200
M24x2		780	1100	1300
M27	41	1050	1500	1800
M27x2		1150	1600	1950
M30	46	1450	2000	2400
M30x2		1600	2250	2700



CMS-I-00000065

M	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
Nm	2.4	4.9	8.4	20.4	40.7	70.5	112	174	242	342	470	589

11.2 Other applicable documents

CMS-T-00002704-B.1

- Yanmar diesel engine operating manual
- Operating manual and maintenance instructions for the air conditioning system
- Operating manual for the radio

Directories

12

12.1 Glossary

CMS-T-00002705-B.1

4

4WDi

This is what the machine's intelligent four-wheel drive is called.

C

CAN

CAN is the abbreviation for Controller Area Network. CAN bus designates the standard network in which all electronic components communicate with each other.

E

ECU

ECU is the abbreviation for Electronic Control Unit. Control units or engine control units are called this.

M

Machine

The self-propelled mower is always referred to as the machine in this operating manual.

O

Operating materials

Operating materials serve to ensure operational readiness. Operating materials include e.g. cleaning agents and lubricants such as lubricating oil, greases or cleaners.

12.2 Index

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W

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