depoortere

User manual

Self-propelled flax baling machine

ZORHY 40

This document is a translation of the original Dutch user manual.

For the latest version of the manual and for online web help, visit www.depoortere.be

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Doc. nr. Zorhy_40_2024_NL

Version 20240219

Content

Preface

Preface

You have made the right choice by purchasing a machine from Depoortere NV. This machine is the result of more than 90 years of expertise in the flax sector.

Depoortere NV contstantly strives to enhance its products. Depoortere NV also reserves the right to make changes and modifications that the company deems necessary. Depoortere NV is NOT obliged to implement these changes on machines that have already been supplied.

We would like to thank you for the collaboration and for the trust that you have shown in our product.

Depoortere NV wishes you a great deal of satisfaction and success with this machine.

Rik Depoortere

Managing director

Depoortere NV

Use of the user manual

TIP
Consult the website of Depoortere NV for the most recent version of this user manual. This user manual is available as a pdf and as a responsive web help system.

See the MANUALS menu on the website or select https://www.depoortere.be/Support.

Before using the machine, but also when using the machine, it is mandatory to consult this user manual, thoroughly read the information supplied, and to perform the work strictly in accordance with that stated in this user manual.

This user manual is an intrinsic part of the machine and must, as prescribed by the current regulations, remain available for consultation until decomissioning of the machine.

For example, from a safety point of view, it is advisable to ensure that everyone who comes into contact with the machine has immediate access to the user manual at all times. Look for a suitable permanent location for the user manual in the vicinity of the machine. This location for the user manual must be safe, dry, and screened from the sun.

Upon delivery of the machine, all user manuals are also supplied.

In the event of the user manual becoming damaged, you must request a new copy from Depoortere NV.

Support

Support	More information
Local dealer	Look for your local dealer on the map. See https://www.depoortere.be/Service

Support	More information
User manuals	Consult the website of Depoortere NV for the most recent version of the user manual. These user manuals are available as a pdf and as a responsive web help system. See https://www.depoortere.be/Support
Service	Mail de service department via service@depoortere.be
Contact	Contact Depoortere NV via the contact form. See https://www.depoortere.be/Contact

Target group

The objective of this user manual is to provide all users of the machine with all relevant information relating to safe working practices with or on the machine, and also to ensure that the machine is kept in optimal condition.

This user manual is applicable to all circumstances involving work with or on the machine. For example, transporting and storage, installing, using, adjusting, maintaining, taking out of service and decomissioning of the machine.

The target group can be defined as follows:

- Operators
- Hauliers
- Qualified technicians (technical departments, electricians, maintenance technicians)
- Persons who are tasked with the final taking out of service and the decommissioning of the machine

The above-mentioned persons with their specific tasks must possess sufficient demonstrable knowledge and/or level of experience. The machine may only be operated by or under the supervision of a qualified person. The operator must be at least 18 years old.

Symbols used

The following symbols are used in this user manual:

TIP
Provides the user with suggestions and advice for performing a procedure more easily or more conveniently.

NOTE
A general note that possibly provides a greater economic benefit.

ENVIRONMENT
Guidelines that must be followed when using hazardous substances and when recycling products and materials.

CAUTION
Denotes a hazardous situation that, if the safety instructions are not followed, can result in minor to moderate injury and/or damage to the machine or harm to the environment.

WARNING
Denotes a hazardous situation that, if the safety instructions are not followed, can result in serious injury or death and/or damage to the machine or harm to the environment.

DANGER
Denotes a hazardous situation that, if the safety instructions are not followed, can result in serious injury or death.

Abbreviations used

An overview of the abbreviations that are used in the manuals for the harvesting machines is provided below.

Abbreviation	More information
ATEX	**AT**mosphères **EX**plosives This is an explosive environment.
BRS	Binding rope system
DEF	**D**iesel **E**xhaust **F**luid This is another name for AdBlue as used in the United States.
DPA	**D**ébit **P**roportionnel à l'**A**vancement This is the proportional flow rate for driving, with ratio of the speed of the belts in relation to the driving speed.
DPF	**D**iesel **P**article **F**ilter This is a filter that is designed to filter soot from diesel engines.
EAT	**E**xhaust **A**fter **T**reatment Dit is het uitlaatgasnabehandelingssysteem. Bestaat uit een roetfilter (DPF) en een katalysator (SCR).
FMI	**F**ailure **M**ode **I**dentifier Identification of the fault mode.
LS	**L**oad **S**ensing The pressure and the flow rate of the hydraulic oil is adapted to the demand from the system. This ensures more efficient use of energy and less heat generation.
PU	**P**ick**U**p This is the pick-up that is used to collect the product.
PWM	**P**ulse **W**idth **M**odulation This is the pulse width modulation.
SCR	**S**elective **C**atalytic **R**eduction This is a system for the post-treatment of waste gases with the aid of a catalyser.
NSP	**S**uspect **P**arameter **N**umber Number of suspect parameter
PTO	**P**ower **T**ake-**O**ff This is the power take-off of the tractor for mechanically driving coupled machines via a drive shaft.

1 Introduction

1.1 Intended use

De ZORHY is een zelfrijdende oproller.

The sole use of the machine is to roll-up bales of fibrous crops (flax, hemp) that have a maximum length of 1,100 mm.

1.2 Prohibited use

It is prohibited to use the machine for purposes other than those stated in this user manual, in safety instructions, or in other safety documents that are supplied with the machine.

It is prohibited to use the machine for transporting goods, animals or people.

Any modification to the machine can affect safety and the guarantee! The removal of parts is also regarded as a modification to the machine.

The machine may not be used in an ATEX zone.

It is prohibited to install parts on the machine that have not been approved by Depoortere NV. These can:

- Adversely affect the operation of the machine
- Endanger the safety of the user or other people
- Shorten the service life of the machine
- Jeopardise conformity with EC directives

It is prohibited to use this machine to process products other than those described in Intended use.

1.3 Service life of the machine

The expected service life of the machine is 40 years.

1.4 Type designation

In all communication with the manufacturer or distributor, you must always state the data on the identification plate (1). You can read the chassis number (2) on the frame. To do this, you must open the door of the engine compartment.

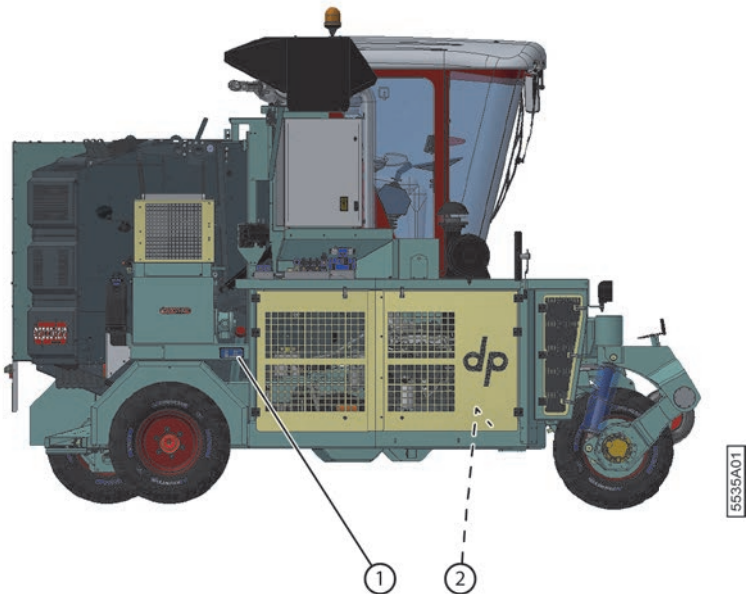


Fig. 1: Location of the identification plate and the chassis number of the machine

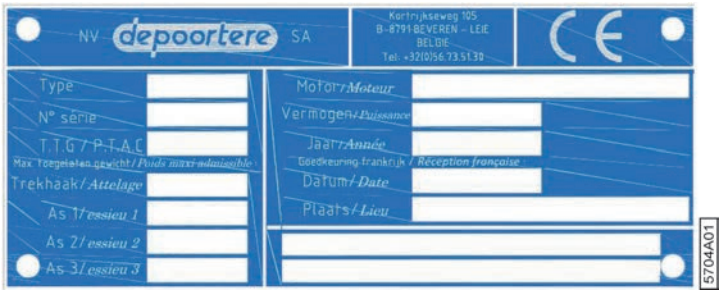


Fig. 2: Example of an identification plate

Label	Value	Additional explanation
Type	ZORHY	The type of machine
N° série	For example: 17,433	The serial number of the machine = the chassis number.
T.T.G / P.T.A.C	7.480 kg	T.T.G. = Toegestaan totaalgewicht (Dutch) P.T.A.C. = Poids Total Autorisé en Charge (French)
Max. toegelaten gewicht / Poids maxi admissible :		
Trekhaak/Attelage	Not applicable	The maximum permissible weight on the tow bar
As 1/essieu 1	3,020 kg	The maximum permissible weight on axle 1
As 2/essieu 2	3,020 kg	The maximum permissible weight on axle 2
As 3/essieu 3	3,020 kg	The maximum permissible weight on axle 3
Motor/Moteur	TCD4.1L4 For example: 120 10 751	The type of engine The serial number of the engine
Vermogen/Puissance	105 kW	The engine power
Jaar/Année	For example: 2017	Year of construction
Goedkeuring frankrijk / Réception française :		

Label	Value	Additional explanation
Datum/Date	Is filled in, if applicable	Date of approval in France
Plaats/Lieu	Is filled in, if applicable	Date of approval in France

1.5 Layout

The arrow shows the driving direction of the machine, The machine consists of:

- Pick-up (1)
- Cabine (2)
- Rope cabinet (3)
- Pressing chamber (4)
- Engine compartment (5)

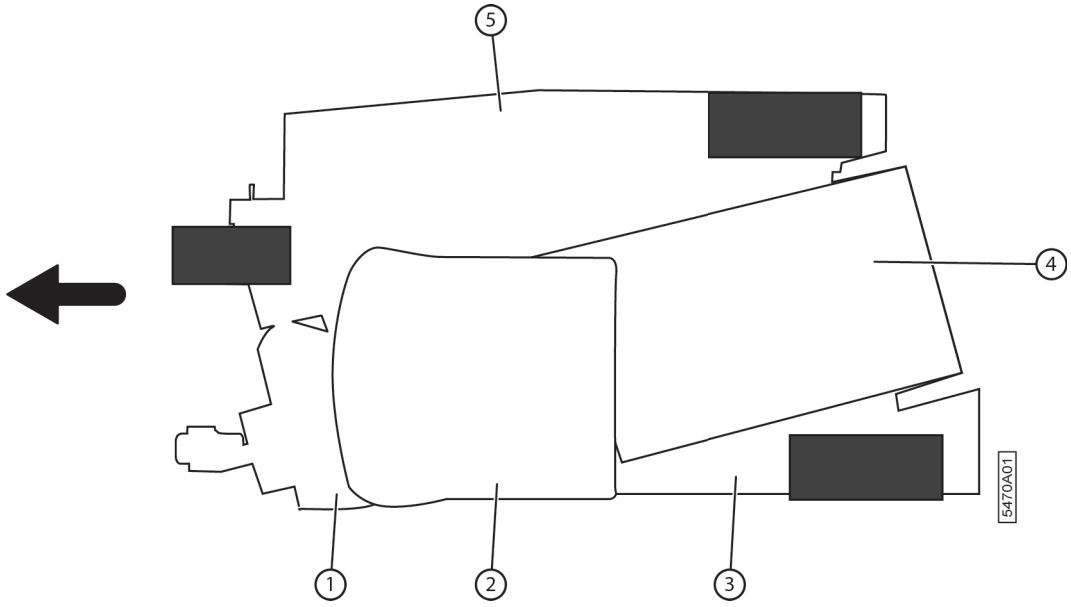


Fig. 3: Layout of machine

1.6 Technical data

1.6.1 Machine data

Data	Explanation
Type	ZORHY 40
Engine	DEUTZ TCD 4.1 L4.
Power	105 kW
Weight	5700 kg
Height	3,734 mm
Width	2,550 mm
Length	5 152 mm
Ambient temperature	0 °C to 40 °C
Relative humidity	0 to 100%

Data	Explanation
Noise level	> 85 dB outside the cabin, at the side of the engine

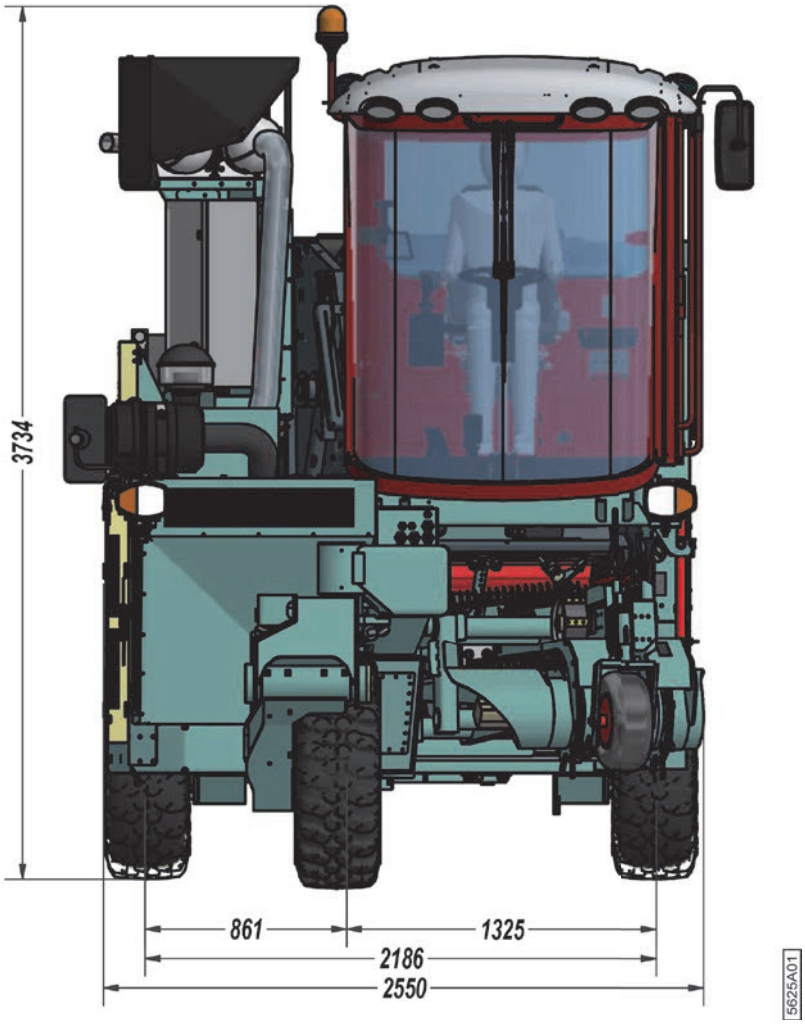


Fig. 4: Dimensions (width and height)

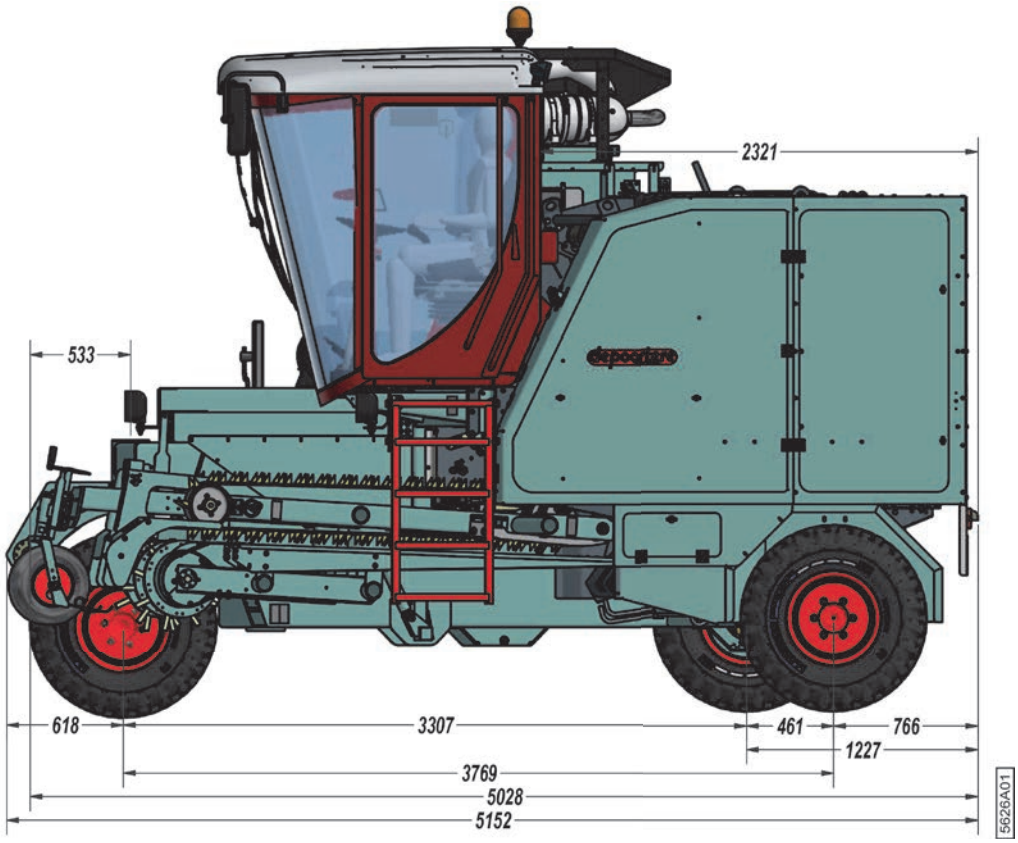


Fig. 5: Dimensions length

1.6.2 Production data

Data	Explanation
Maximum productivity	The machine can process flax at a speed of 23 km/hour.

2 Description

2.1 Overview of the machine

2.1.1 Front view

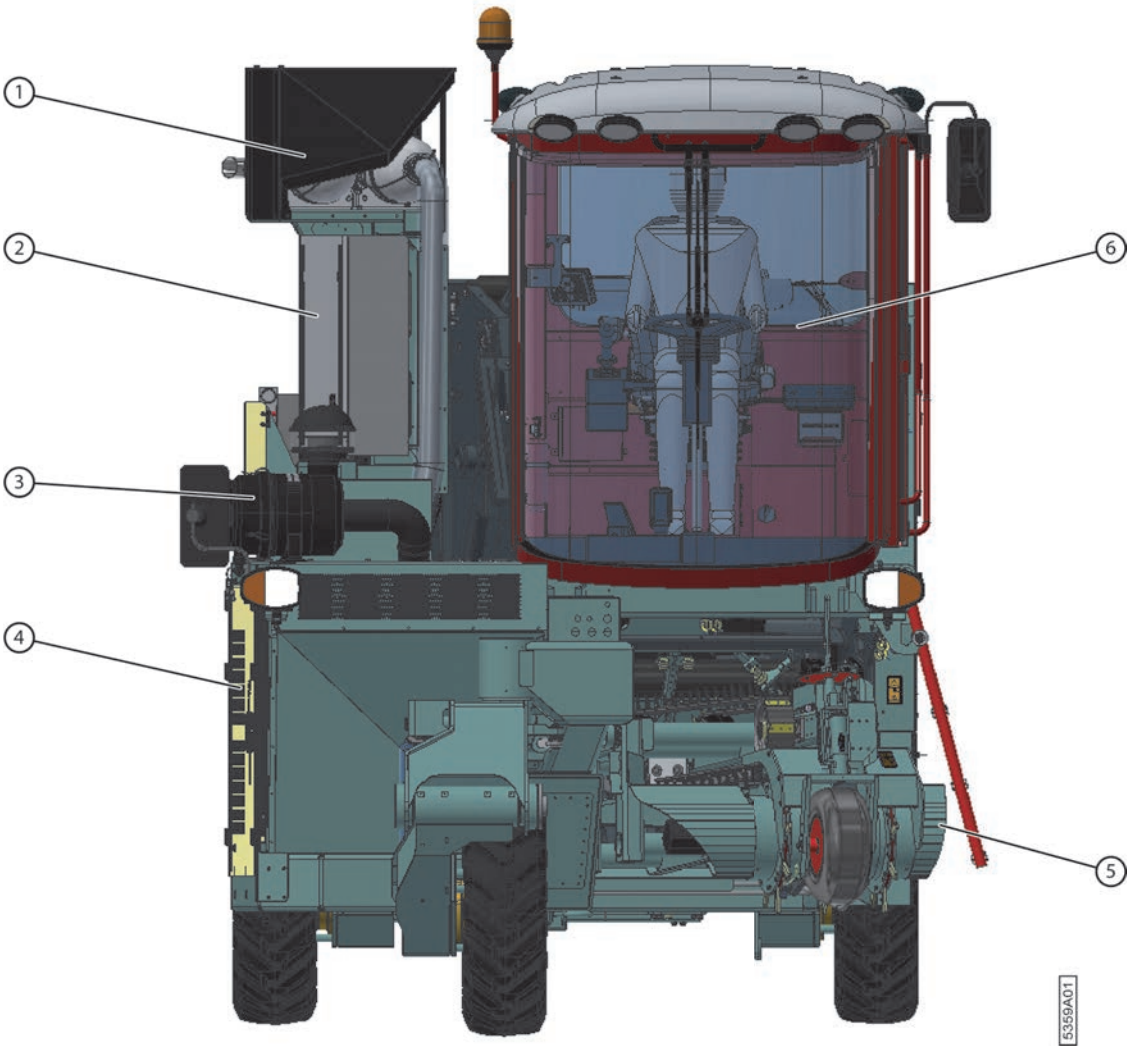


Fig. 6: Front view of the machine

Nr.	Name
1	Exhaust pipe
2	Electrical cabinet
3	Air filter
4	Engine compartment
5	Pick-up
6	Cabin

2.1.2 Left-hand side view

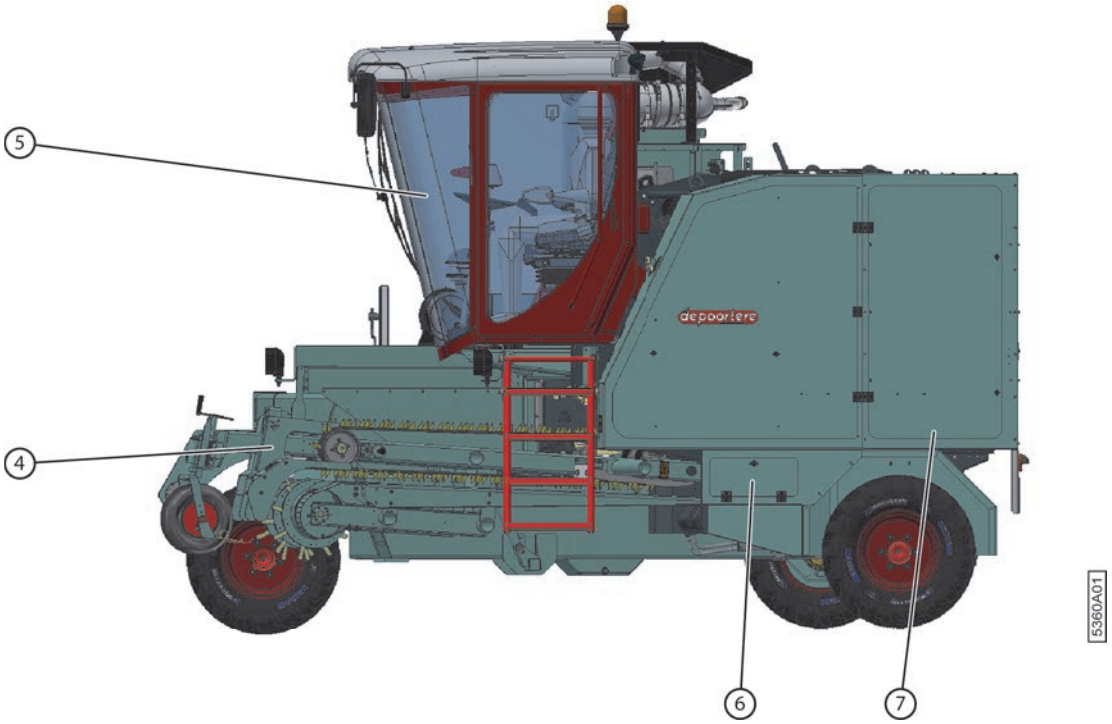


Fig. 7: Left-hand side view

Nr.	Explanation
4	Pick-up
5	Cabin
6	Tool cabinet
7	Rope cabinet

2.1.3 Right-hand side view

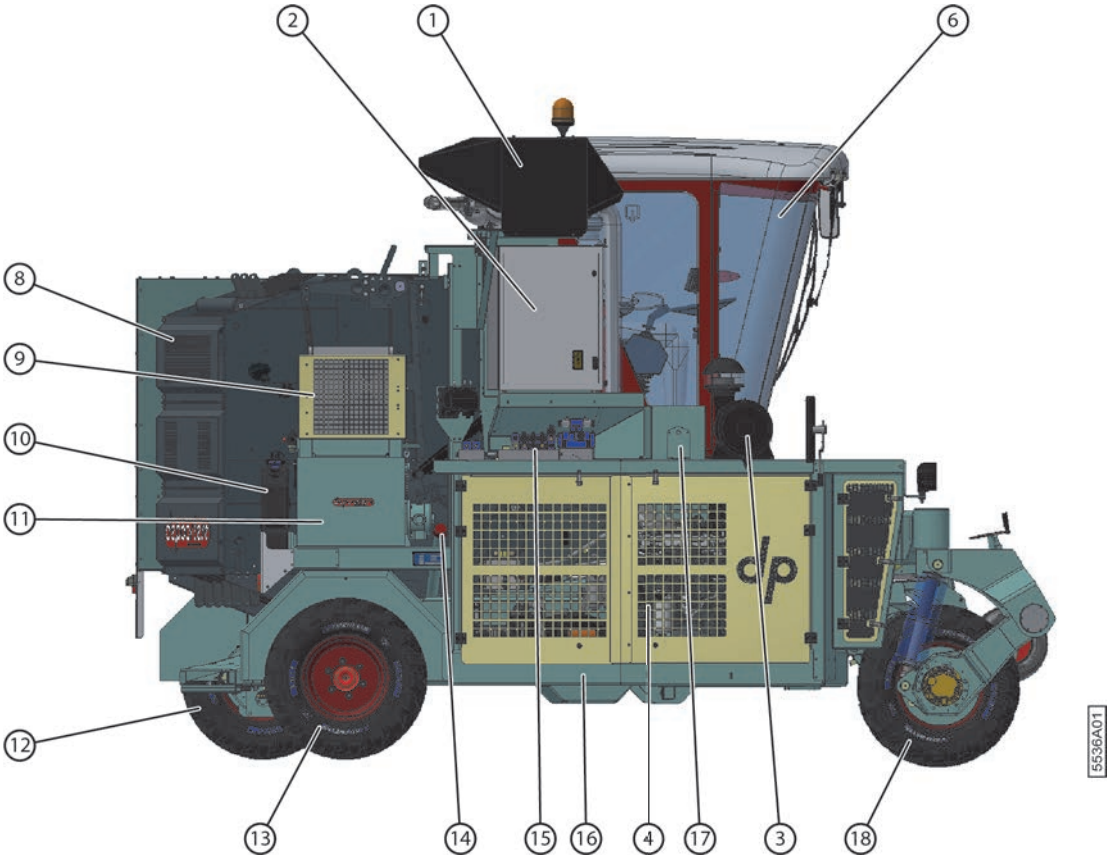


Fig. 8: Right-hand side view

Nr.	Explanation
1	Exhaust pipe
2	Electrical cabinet
3	Air filter
4	Engine compartment
6	Cabin
8	Cage
9	Oil cooler and airco condenser
10	AdBlue tank (only EU)
11	Hydraulic tank
12	Rear wheel on left-hand side
13	Rear wheel on right-hand side
14	Fuel tank cap
15	Valve blocks
16	Chassis
17	Battery key
18	Front wheel

2.2 Layout and names

2.2.1 Overview of cabin

The outside of the cabin is equipped with:

- Windscreen wipers
- Windscreen washer reservoir
- Door
- Ladder
- Mirrors
- Flashing light
- Headlights

The inside of the cabin is equipped with:

- Steering column
- Operating pedal
- Emergency stop button
- Driver's seat
- Passenger's seat
- Control console + joystick
- Control screen
- Controls
- Monitor (optional)
- Cabin lighting
- Air conditioning
- Radio
- Sunblinds

2.2.2 The door

The cabin door is a sliding door that has a black aluminium handle (1) (4) on the inside and outside. The handles are only used for sliding the door open and closed. The handle may not be used when entering or exiting the cabin. On the inside, a handle (2) can be used to lock the door, and on the outside, a key can be used to lock the door. On the outside, the door is equipped with strong iron handle (3). The iron handle (5) that is provided on the cabin itself, enables you to easily and safely enter or exit the cabin.

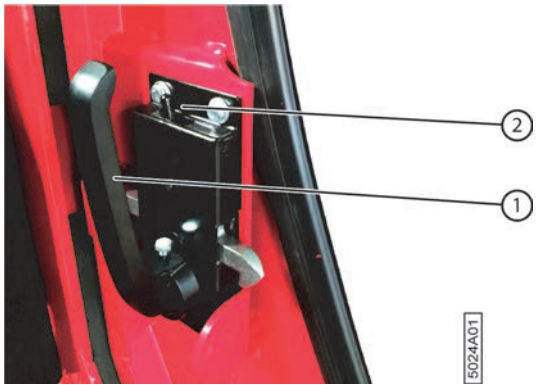


Fig. 9: The door handle on the inside of the cabin

Fig. 10: The door on the outside of the cabin

2.2.3 The ladder

The ladder can be placed in 2 positions. The ladder can be folded and unfolded. In the field, the ladder is always unfolded so that:

- the flax does not touch the ladder.
- you can enter the cabin more easily and more safely.

CAUTION
The ladder must be folded before you drive the machine on a public road.

Fig. 11: The ladder folded and unfolded

2.2.4 Mirrors

2 mirrors are installed in order to ensure that you have optimal visibility around the machine.

The left-hand mirror (2) is mounted on the cabin. The right-hand mirror (1) is mounted on the chassis. Both mirrors must be manually adjusted so that the blind spot for vulnerable road users is minimised.

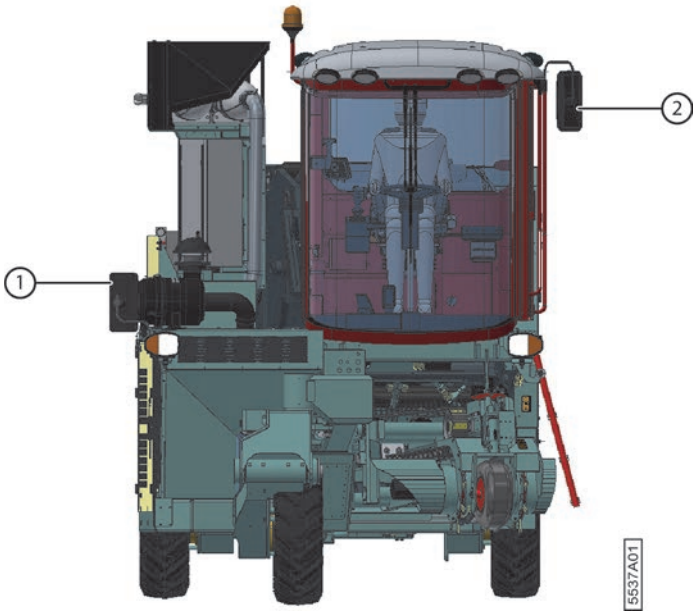


Fig. 12: Position of the mirrors

2.2.5 The flashing light

As soon as the machine is placed in Road mode, the flashing light (1) is automatically activated. The flashing light can also be activated via the control button at the front in the cabin roof, when the battery key is switched ON.

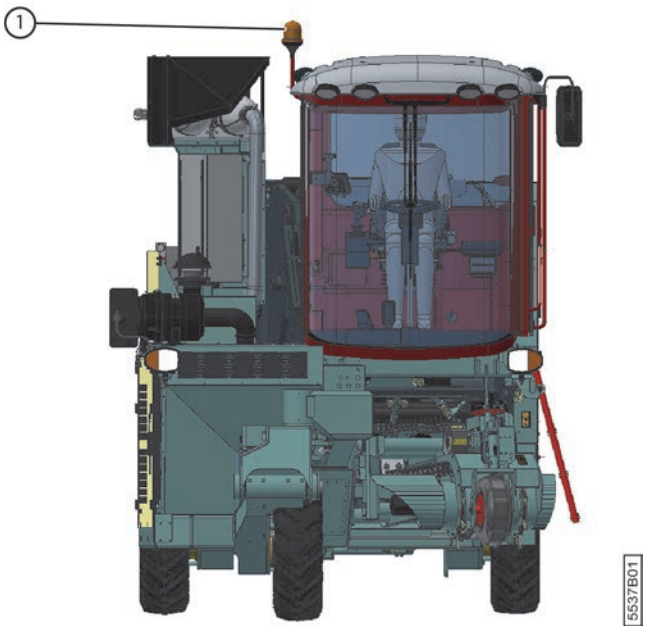


Fig. 13: The flashing light

2.2.6 The windscreen wipers and the windscreen washer reservoir

The windscreen wiper and the windscreen washer are operated by the buttons in the cabin. The windscreen wiper has 3 speeds. The windscreen washer reservoir (1) is located in the rear of the cabin.

Fig. 14: Windscreen washer reservoir

2.2.7 The headlights

The headlights may not be used on public roads. They can dazzle oncoming traffic or traffic behind.

The machine is equipped with the following headlights:

- 4 headlights at the front on the roof, provide optimal lighting of the driving direction and the swath to be collected.
- 1 headlight at the rear on the roof of the cabin, provides optimal on the left-hand side of the machine.
- 1 headlight at the throughput, provides optimal lighting for the binding system and the transition from the conveyor belts to the pressing chamber. If equipped with an optional camera, this lighting also guarantees clear images.
- 1 headlight at the rear of the machine, provides optimal lighting for the rear of the machine. If equipped with an optional camera, this lighting also guarantees clear images.

See also

- 8.2.12 Switching the lights of the machine ON or OFF on page 103

2.2.8 The controls in the cabin

Left

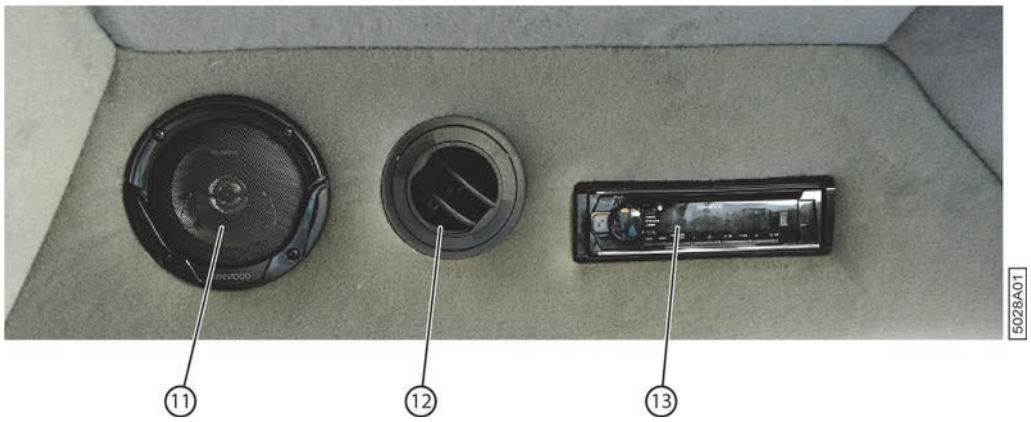


Fig. 15: Controls on left-hand side of cabin roof

Nr.	Explanation
11	Loudspeaker
12	Adjustable ventilation grill
13	Radio

Centre

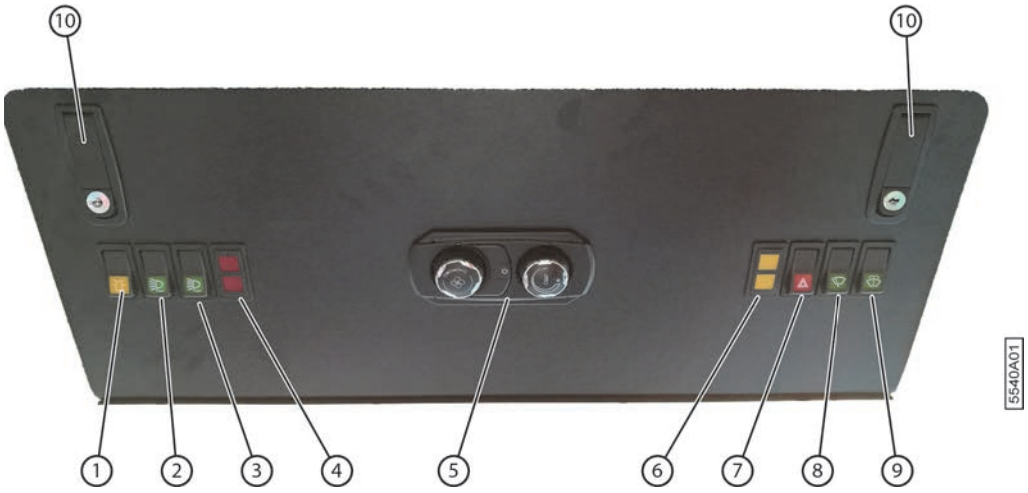


Fig. 16: Controls on left-hand side of cabin roof

Nr.	Explanation
1	Flashing light switch “slow vehicle”
2	Headlights switch, sides at front
3	Headlights switch, centre at front
4	Indicator light, diameter of bale reached
5	Air conditioning control
6	Rope break indicator light
7	Alarm signal, 4 flashing lights
8	3-speed windscreen wiper switch
9	Windscreen washer jets

Nr.	Explanation
10	Closures

Right

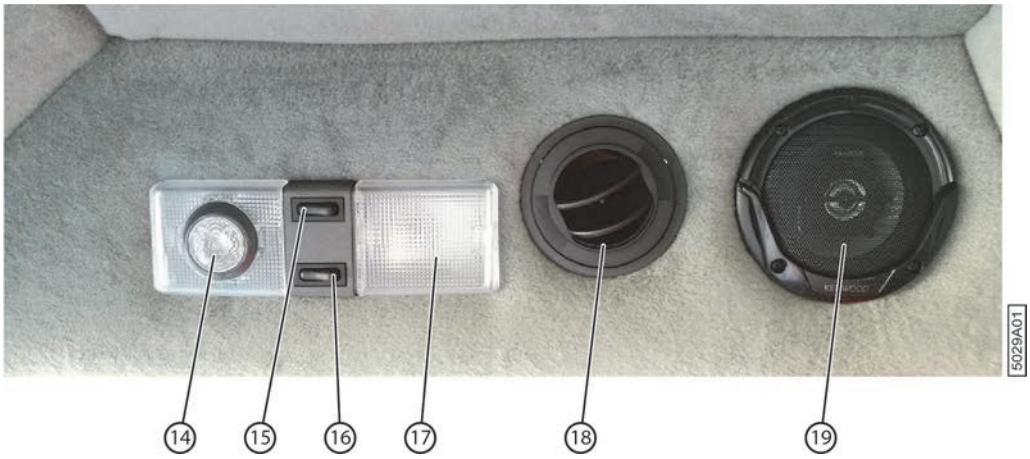


Fig. 17: Controls on right-hand side of cabin roof

Nr.	Part
14	Reading lamp
15	Reading lamp switch
16	Cabin lighting switch
17	Cabin lighting
18	Adjustable ventilation grill
19	Loudspeaker

Front

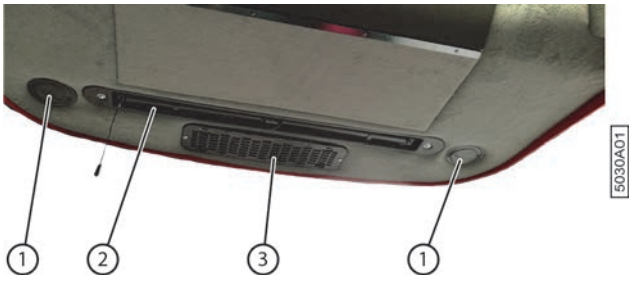


Fig. 18: Controls at the front in the cabin

Nr.	Explanation
1	Adjustable ventilation grill
2	Sunblind
3	Air extraction

2.2.9 The air conditioning

Fig. 19: The air conditioning

Nr.	Explanation
1	Control knob for adjusting the air flow.
2	Button for switching ON the air conditioning.
3	Control knob for adjusting the temperature of the hot air flow.

2.2.10 The driver's seat

The driver's seat is positioned centrally above the rows of flax to be collected, so that you have an ergonomic posture when driving on the field and on public roads. The driver's seat is equipped with air suspension and can be adjusted to the physique of the driver.

You can find more information about the driver's seat in the user manual for the driver's seat that, just like other user manuals, is supplied with the machine and is kept in the storage compartment underneath the driver's seat. Press the button to open the storage compartment.

See also

- 9.1.1 Adjusting the driver's seat on page 139

2.2.11 The passenger's seat

The passenger's seat is located on the left-hand side of the driver's seat and is folded down when it is not in use. On the field, only 1 passenger can sit in the passenger's seat in the cabin.

WARNING

- The passenger may not perform any actions.
- The passenger may not distract the driver from performing an action.
- When driving on a road, none of the passengers may be in the cabin.

Fig. 20: Passenger's seat

2.2.12 The steering column

The steering powers the front wheel in order to steer the machine in a certain direction. Via the lever on the steering column, you can:

- Adjust the height of the steering column
- Tilt the steering column

See also

- 9.1.3 Tilting the steering column on page 139
- 9.1.2 Adjusting the height of the steering wheel on page 139

2.2.13 The accelerator pedal

The accelerator pedal (2) is the rightmost pedal beside the steering column, and is operated with the right foot. In the Pedal driving mode, the pedal is used in combination with the joystick to drive the machine in the Field mode and in the Road mode. The pedal controls the revs./min. and the speed of the machine.

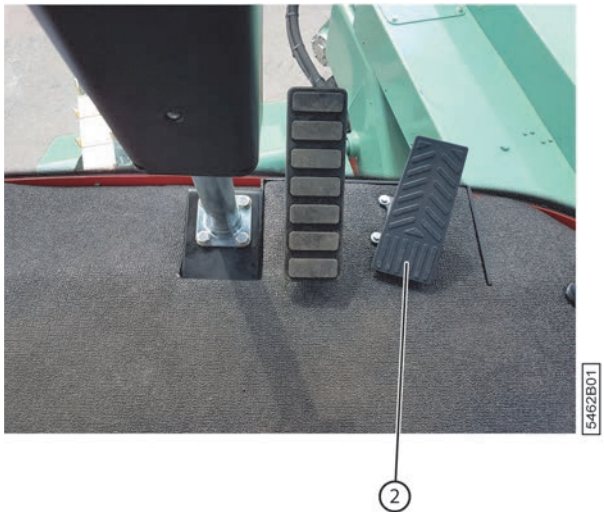


Fig. 21: The accelerator pedal

See also

- 8.2.24 Driving the machine (in driving mode with pedal) on page 112

2.2.14 The brake pedal

The brake pedal (1) is the pedal nearest to the steering column, and is operated with the right foot.

Each rear wheel is equipped with a wheel motor. Via the joystick, you can use the wheel motor to brake. If you cannot brake hard enough using the joystick, you can use the brake pedal.

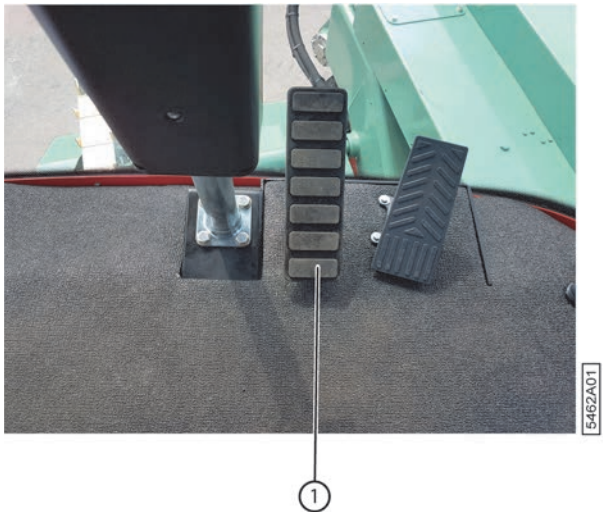


Fig. 22: The brake pedal

2.2.15 The tyres

The 3 tyres are the same type, and by default, they are Michelin 340/80 R18 143A8/143B IND TL XMCL (A)

As an option, the type Michelin Bibload (B) can be used

The tyre for the front wheel is the type Trelleborg T-510 16x6.50-8 IMP (Reference Depoortere NV: 0383100040).

See also

- 10.2.25 Checking the tyre pressure on page 172
- 10.2.24 Checking the tyre pressure of the front wheel on page 171

2.2.16 The sprung front wheel (option)

The front wheel can be sprung (option). The front wheel can move up and down because of the hinge (2), and shocks can be absorbed by the spring (1). This design enhances the comfort of the driver.

Via the shaft (3), the front wheel can move to the left and to the right.

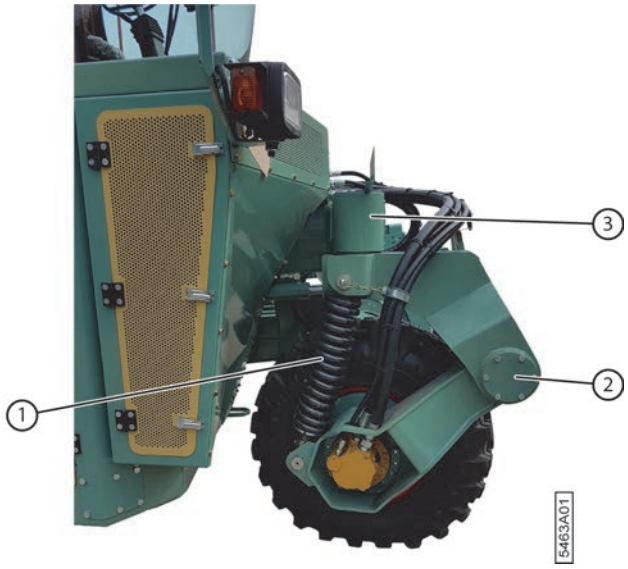


Fig. 23: The sprung front wheel

2.2.17 The control unit

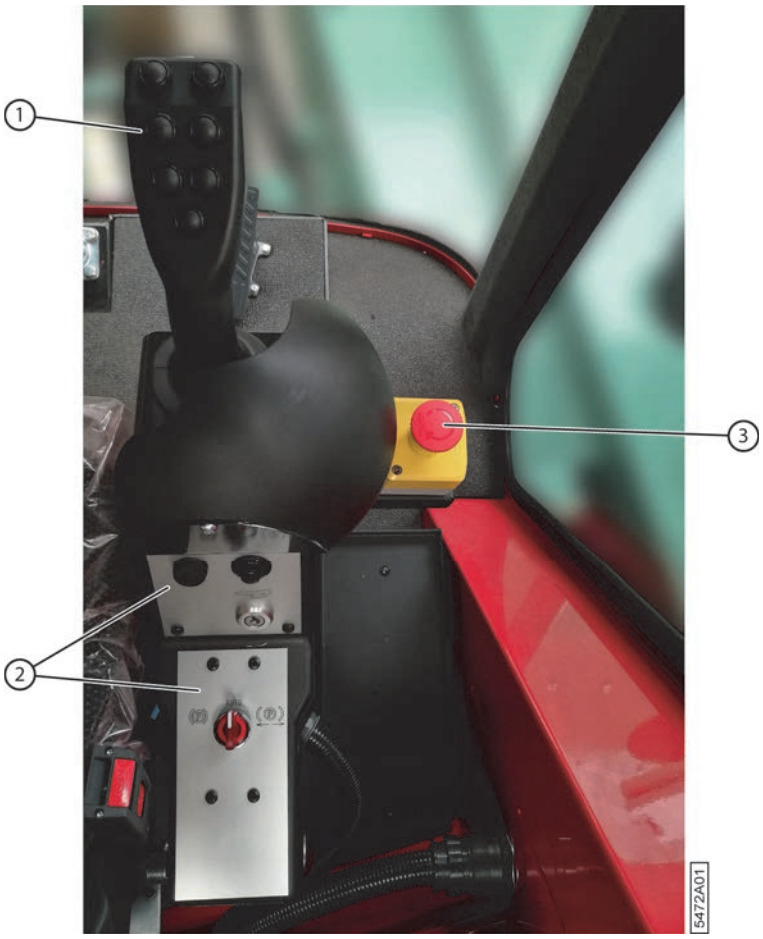


Fig. 24: The control unit

The control unit consists of a joystick (1), a control console (2) and an emergency stop button (3). The control console consists of a horizontal part with the 3-position switch for the parking brake and a vertical part with, for example, the ignition.

On the control unit, you can also find the buzzer and a 12-volt connection.

2.2.18 The buzzer

The buzzer (1) is installed underneath the control unit. You have to raise the control unit to see the buzzer. The buzzer is activated in the event of an alarm.

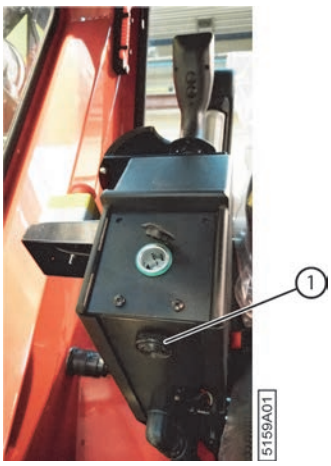


Fig. 25: Buzzer

2.2.19 The 12-volt connection

The 12-volt connection (1) is located on the rear of the control unit. This enables you to charge devices

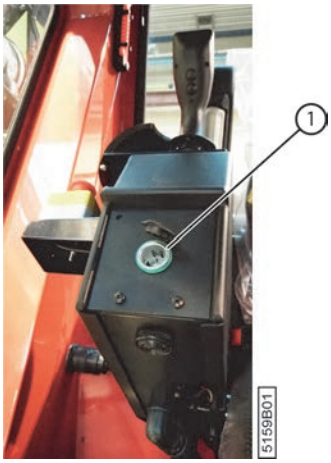


Fig. 26: The 12-volt connection

2.2.20 The control screen

De machine is operated via the control screen.

Via the control screen you can:

- place the machine in a specific mode (Road, Field, Loading, Manual)
- place the machine in a specific driving mode (joystick or pedal)
- operate the machine in Field mode or in Road mode
- view the inputs and outputs
- view fault messages
- view engine information
- retrieve the diagnostic window

The control screen is a touchscreen.

Fig. 27: The control screen

2.2.21 Monitor and cameras (optional)

As an option, the machine can be equipped with a monitor and 2 cameras. The camera at the front monitors the input of flax into the pick-up. The camera at the rear monitors the output of the bale from the pressing chamber. The monitor is mounted in the cabin and, by default, displays the image from the camera at the front. The monitor displays the image from the camera at the rear.

- if you drive backwards
- from the moment that the pressing chamber is opened until the pressing chamber is closed

You can select the image yourself by pressing the rightmost button on the monitor.

2.2.22 The fire extinguisher

The fire extinguisher (1) is located at the front-right in the cabin.

Fig. 28: Fire extinguisher

NOTE
Inspect the fire extinguisher in accordance with the current local regulations.

2.2.23 The fuel tank

The fuel tank is located on the right-hand side of machine and has a capacity of 350 litres.

For information about the fuel to be used, see supplied user manual for the DEUTZ diesel engine.

See also
- 10.3.16 Checking the fuel level on page 208
- 10.3.18 Filling the fuel tank on page 209

2.2.24 The hydraulic tank

The hydraulic tank is located at the rear on the right-hand side of machine and has a capacity of 145 litres.

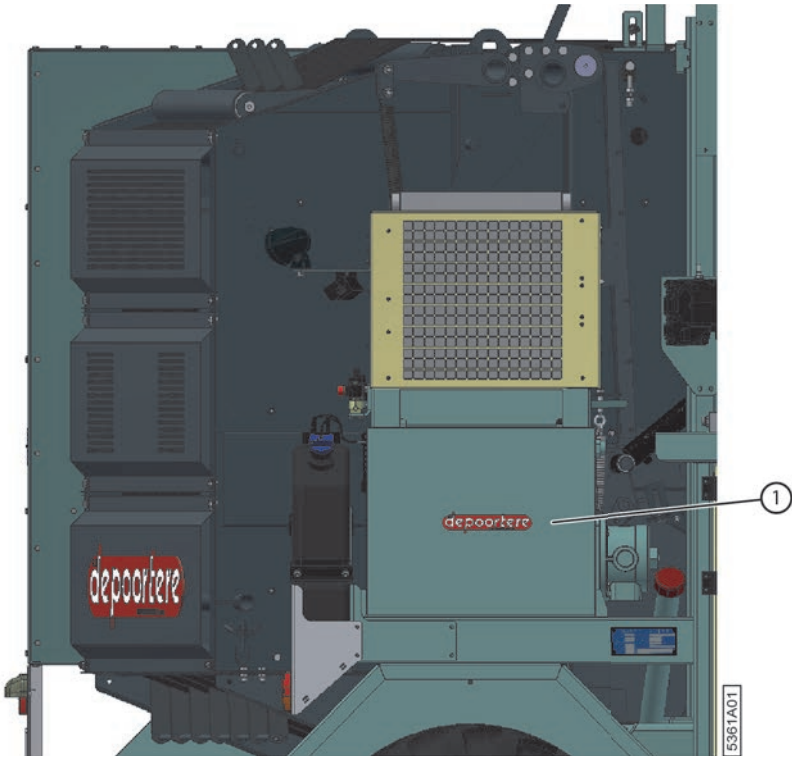


Fig. 29: The hydraulic tank

See also
- 10.2.16 Isolating the hydraulic tank on page 166
- 10.2.40 Replacing the hydraulic oil on page 178
- 12.2.2 Draining the hydraulic tank on page 234

2.2.25 The electrical cabinet

The electrical cabinet is located on the right-hand side of the machine. The electrical cabinet contains several fuses, and 2 controllers for the control are mounted on the inside of the door. Another controller is mounted behind the electrical cabinet.

See also
- 10.3.32 Replacing a fuse on page 217
- 10.3.5 Welding on the machine on page 199

2.2.26 The air filter

The air filter prevents dust particles from entering the combustion chamber of the engine. The air filter consists of a filter element and a housing. The filter element can be removed for cleaning or replacement.

See also

- 10.2.17 Checking the air filter on page 167
- 10.2.18 Cleaning the air filter on page 167
- 10.2.20 Replacing the air filter on page 169

2.2.27 The pick-up

The pick-up collects the flax and transports the flax to the pressing chamber where it is rolled-up.

The pick-up consists of a front wheel (2) whose height can be adjusted via a spindle. The front wheel is equipped with 2 guides (coiled springs) that prevent the flax from springing up after the front wheel has driven over the flax.

3 rows of pick-up teeth (3) collect the flax. Each pick-up drum has 10 teeth. An eccentric shaft ensures that the length of the pick-up teeth is at maximum below the drum when collecting the flax, and at minimum above the drum during the transition to the transporting of the flax by the conveyor belts (12). Below, the flax is guided by guiding arcs (5) and above, by a foldable guide (1). The guiding arcs (5) consist of metal plates that guide the flax from the ground to the guide profiles (8). The foldable guide (1) guides the flax to the conveyor belts. By manually sliding the handle, you can unfold the guide in order to remove blockages.

The conveyor belts consist of plastic belts on which metal attachments are mounted. The conveyor belts are driven by rubber-coated drive pulleys (11) and are suspended at the other end by non-driven pulleys (4). Dirt is removed from the inside of the belts by a plastic scraper (7). The flax pushers (10) at the end of the conveyor belts ensure that the flax is pushed away and remains on the guide profiles instead of continuing further with the conveyor belts. The ends of the guide profiles are equipped with guide strips (9) that guide the flax further to the pressing chamber.

Before driving on public roads, the lock (6) must be used to lock the pick-up.

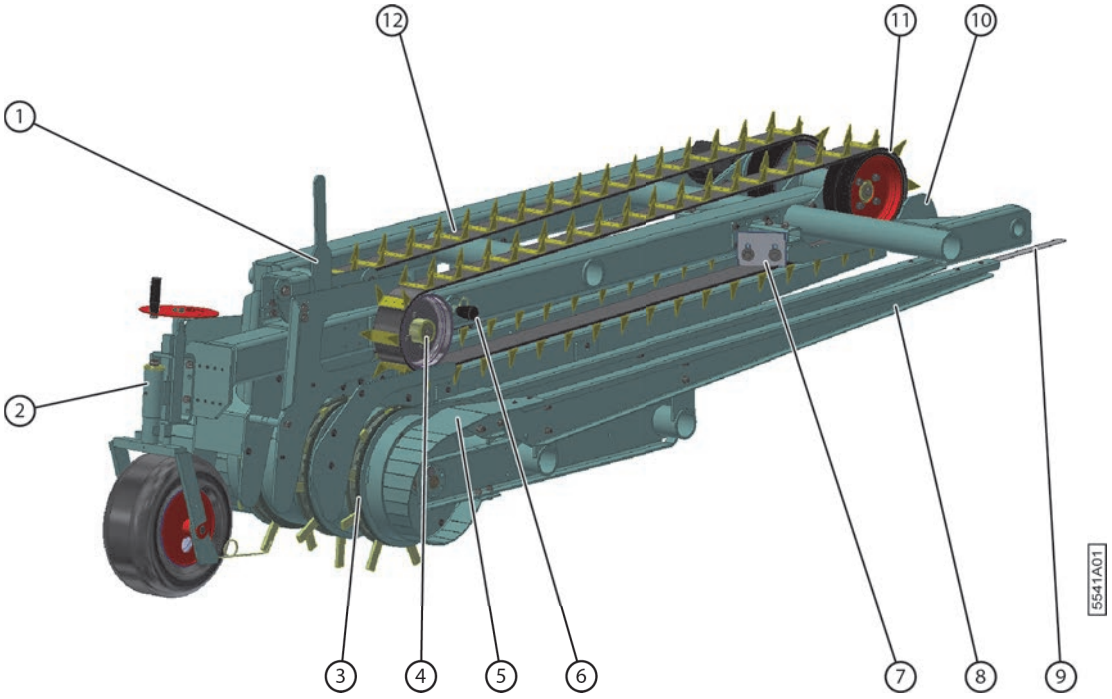


Fig. 30: The pick-up

Nr.	Name
1	Foldable guide
2	Front wheel
3	Pick-up drum
4	Non-driven pulley
5	Guiding arcs
6	Lock
7	Scraper
8	Guide profile
9	Guide strip
10	Flax pusher
11	(Rubber-coated) drive pulley
12	Conveyor belt with attachments

See also

- 8.2.32 Raising or lowering the pick-up (via the control screen) on page 116
- 8.2.33 Raising the pick-up (via the joystick) on page 116

2.2.28 The rope cabinet

The rope cabinet has 2 doors. Behind the left-hand door, you can find the rope tensioning system (2) and the storage location (3) for a coil. Behind the right-hand door, you can find the remaining stock of coils.

The (Sisal or jute) coils are in cardboard packaging so that they can easily be unrolled. On one side of the coil, you can find the pulling side of the rope that is usually marked with a label. The other side of the rope can be secured to the pulling side of the next coil. You can already join the coils in the rope cabinet together in advance. The ropes are guided by the eye hooks (4). The rope tensioning system is equipped with 2 sensors that check for a rope break. The sensors also check that the rope is cut after binding. The sensors are located on the rear of the inner door (1).

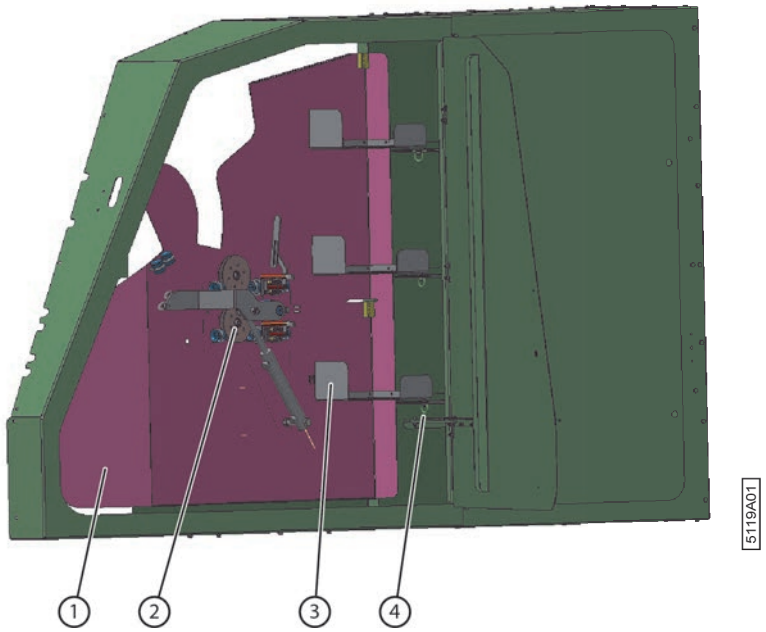


Fig. 31: The rope cabinet at the front

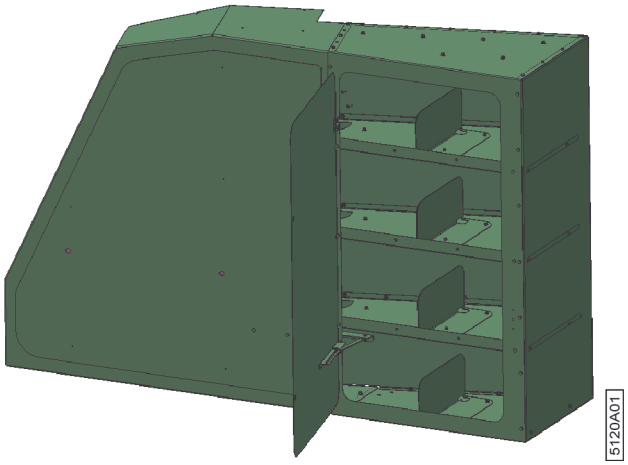


Fig. 32: The rope cabinet at the rear

2.2.29 The rope tensioning system

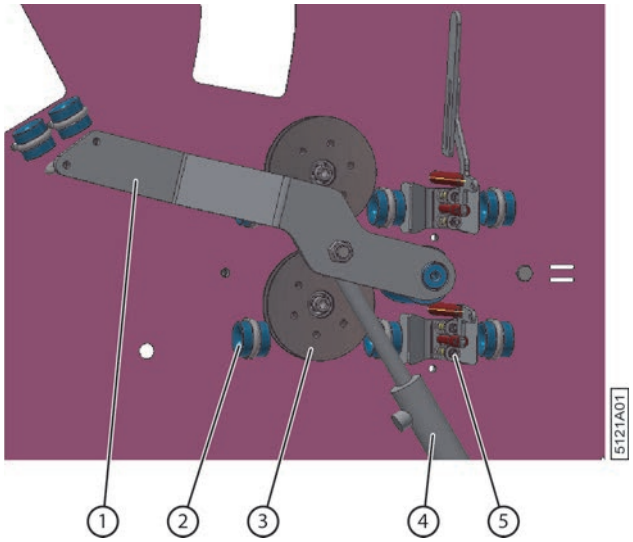


Fig. 33: The rope tensioning system

Nr.	Part	Explanation
1	Lever	At the moment when the ropes are cut, the lever is moved downwards by cylinder (4) and extra rope is released for the start of a new bale.
2	Rope guide	The rope guides ensure that the rope is optimally guided from one point to a different point.
3	Break monitoring tool	The rope is wrapped around the pulleys and drives the pulleys when rolling-up the flax into a bale. The sensor behind the plate sends a signal to the control console each time a screw of the pulley passes in front of the sensor. As soon as the rope breaks, the pulley stops rotating. Signals are no longer sent to the control console. The control console will generate a fault message.
4	Cylinder	This cylinder operates the lever (1) at the moment when the ropes are cut.

Nr.	Part	Explanation
5	Rope tensioner	The rope tensioner provides the required tension on the rope, so that pressing force is not lost from the material that has already been pressed. Both rope tensioners are connected by a rod (not shown in illustration) and are detensioned at the moment when the bale exits the pressing chamber. After the bale exits the pressing chamber, the balancing arm moves downwards and the belts in the pressing chamber are retensionsed. The stop that is connected to the balancing arm pushes in the lever of the rope tensioners so that the rope tensioners are detensioned. This is necessary so that no tension is exerted on the bale during the start of the creation of the bale, and so that the ropes are easily taken by the flax. After the core of the bale has been created and the balancing arm is raised, the lever is released and the rope tensioners once again provide the required tension on the rope.

2.2.30 The binding rope system (version with fingers)

The binding rope system is located immediately behind the conveyor belts of the pick-up. The binding rope system ensures that, during the rolling-up of the flax, the 2 ropes are in the centre of the bale. When rolling-up the final layers of the bale, the binding rope system moves the ropes outwards so that the bale is firmly bound and the ropes are cut. The cutting takes place by clamping the ropes and by moving the ropes against the knives at the same time.

The binding rope system consists of 2 needles (6) that guide the ropes via the metal rope guides (4) in the centre of the bale. When the bale is almost ready, the cylinder (5) pushes the needles open. The ropes are routed from the centre to the outside of the bale, and this results in optimal binding of the bale. In the most open position of the needles, the ropes are clamped between the mushroom (1) and the metal rope guide (4) so that the rope is pushed by the finger (3) against the knives and cut. 2 porcelain rope guides at the front, that have a smaller diameter, ensure that the rope does not spring back after cutting.

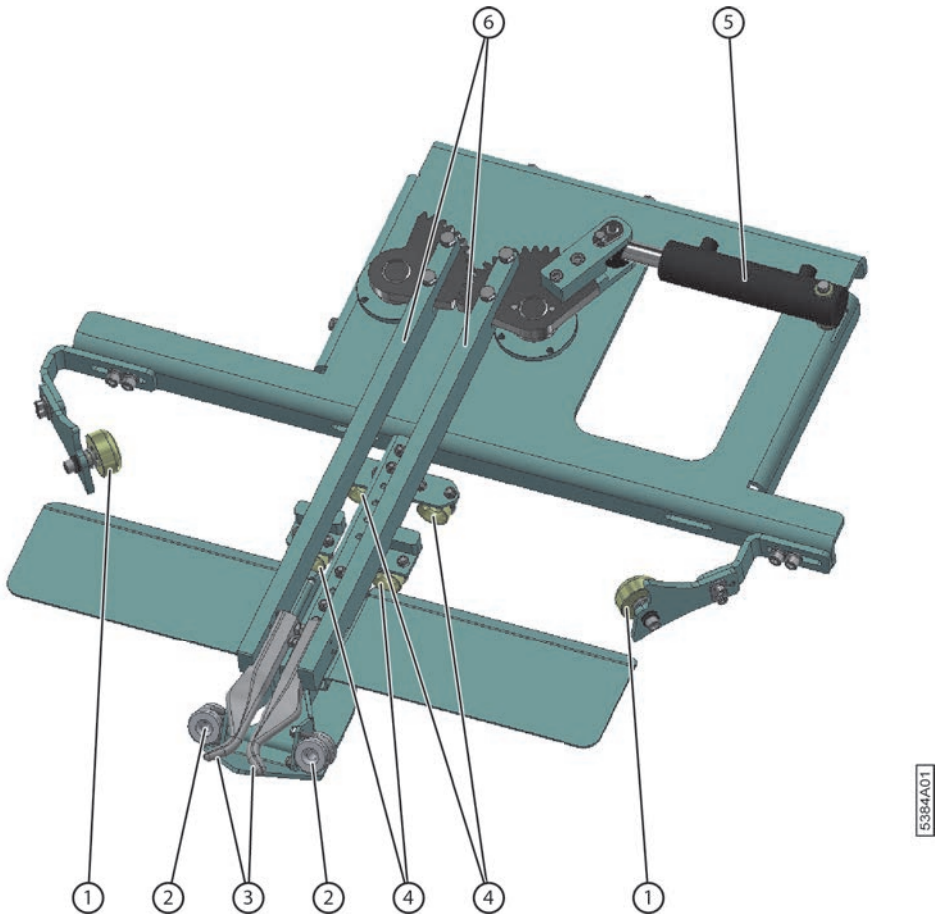


Fig. 34: The binding rope system (bottom view)

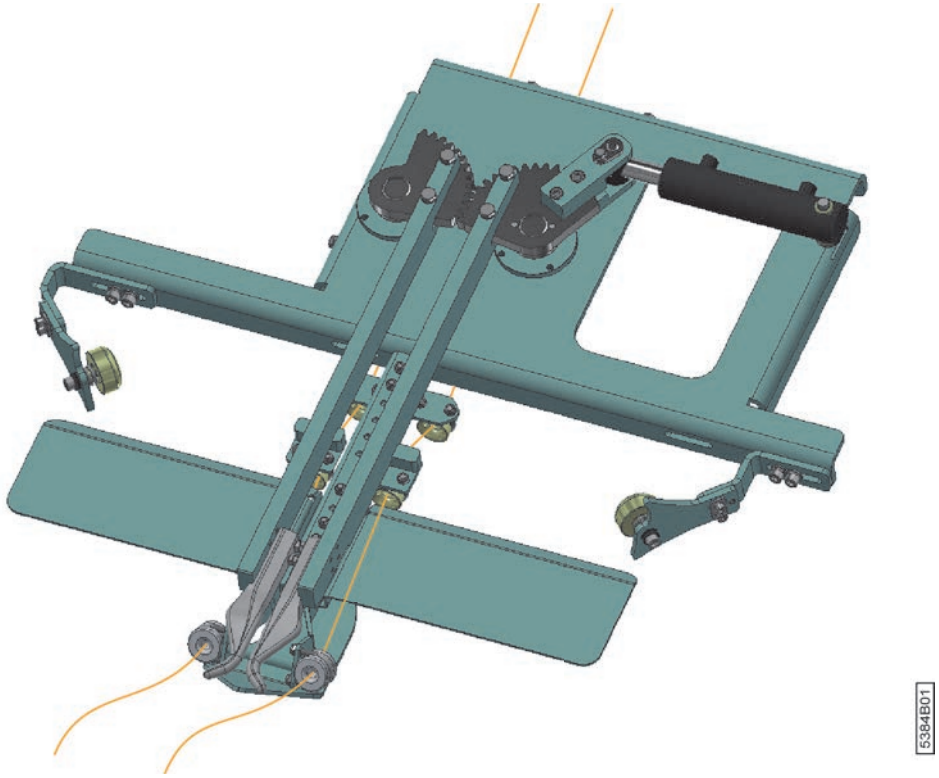


Fig. 35: The binding rope system with ropes in closed position (bottom view)

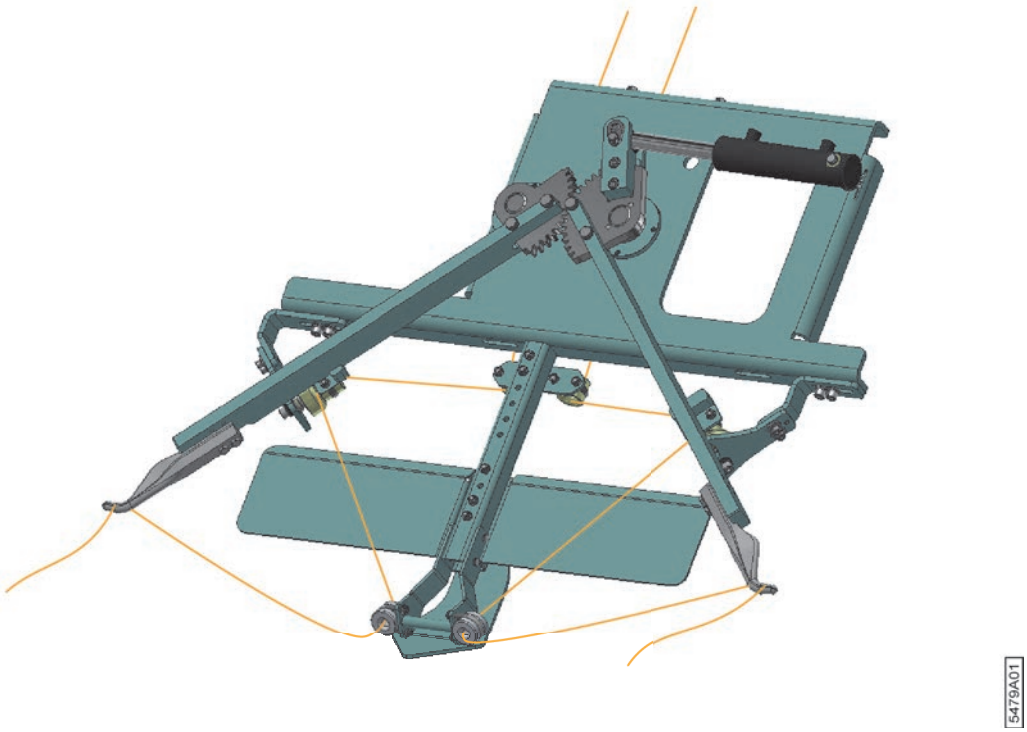


Fig. 36: The binding rope system with ropes in open position (bottom view)

2.2.31 The binding rope system (version with tubes)

The binding rope system is located immediately behind the conveyor belts of the pick-up. The binding rope system ensures that, during the rolling-up of the flax, the 2 ropes are in the centre of the bale. When rolling-up the last layers of the bale, the binding rope system moves the ropes outwards so that the bale is firmly bound and the ropes are cut. The cutting takes place by clamping the ropes and by moving the ropes against the knives at the same time.

The binding rope system consists of 2 needles (6) that guide the ropes via the metal rope guides (4) in the centre of the bale. When the bale is almost ready, the cylinder (5) pushes the needles open. The ropes are routed from the centre to the outside of the bale, and this results in optimal binding of the bale. In the most open position of the needles, the ropes are clamped between the mushroom (1) and the metal rope guide (4) so that the rope is pushed by the tube (2) against the knives and cut.

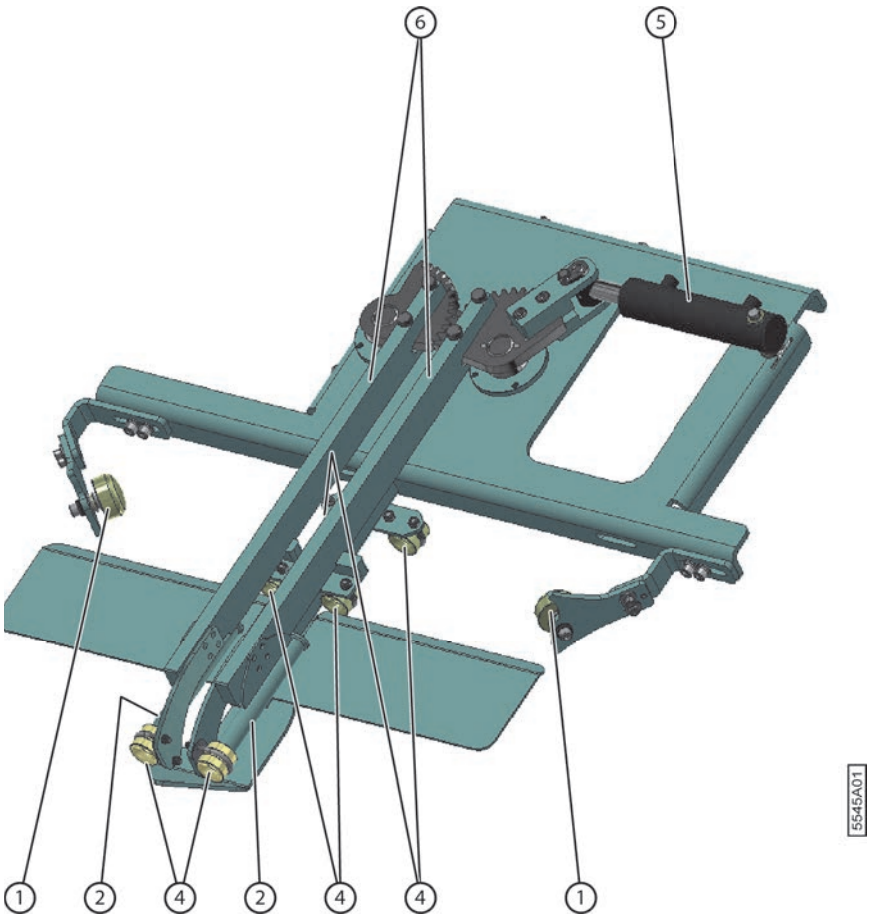


Fig. 37: The binding rope system (bottom view)

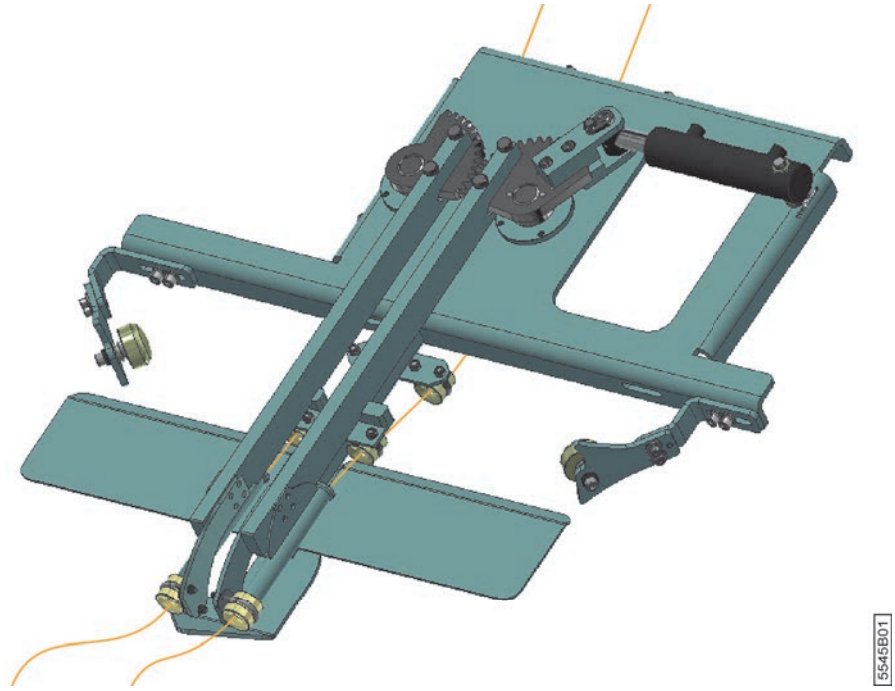


Fig. 38: The binding rope system with ropes in closed position (bottom view)

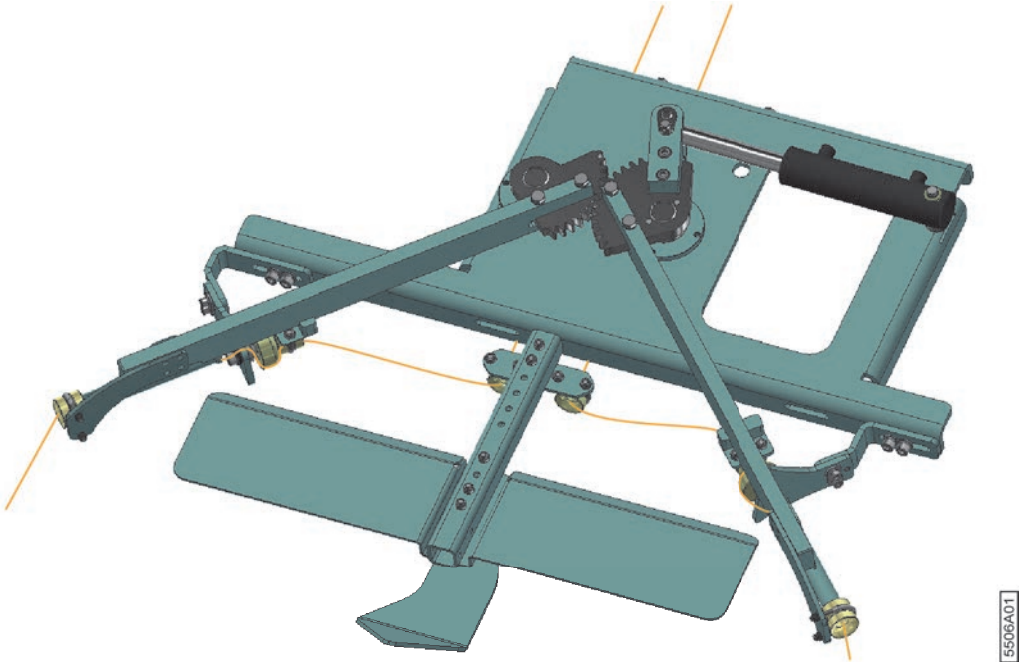


Fig. 39: The binding rope system with ropes in open position

2.2.32 The pressing chamber

The pressing chamber rolls-up the flax and compresses the flax into a cylindrical bale. The bale is formed by rollers and pressing chamber belts. When the bale is the desired size, the binding system starts the binding. The pressing chamber then opens and the bale is pushed out.

The pressing chamber consists of a fixed part and a movable part (pressing chamber door). The pressing chamber contains the rollers and pressing chamber belts. The pressing chamber is equipped with 2 locking devices on the cylinders of the pressing chamber door. The pressing chamber door must always be locked when performing work on the open pressing chamber so that it cannot descend.

A bottom plate is installed as standard in the pressing chamber. For shorter flax, a top plate can also be installed. For longer flax, both plates can be removed.

See also

- 8.2.39 Allowing the pressing chamber belts to rotate forwards on page 120
- 10.2.66 Lubricating the pressing chamber on page 191

2.2.33 The engine compartment

The engine compartment is located on the right-hand side of the machine. The engine compartment has 2 protective doors. An extra protective door is installed at the front so that the radiators for the engine can be cleaned.

The engine used is a DEUTZ TCD 4.1 L4.

4 hydraulic pumps are connected to the engine (5).

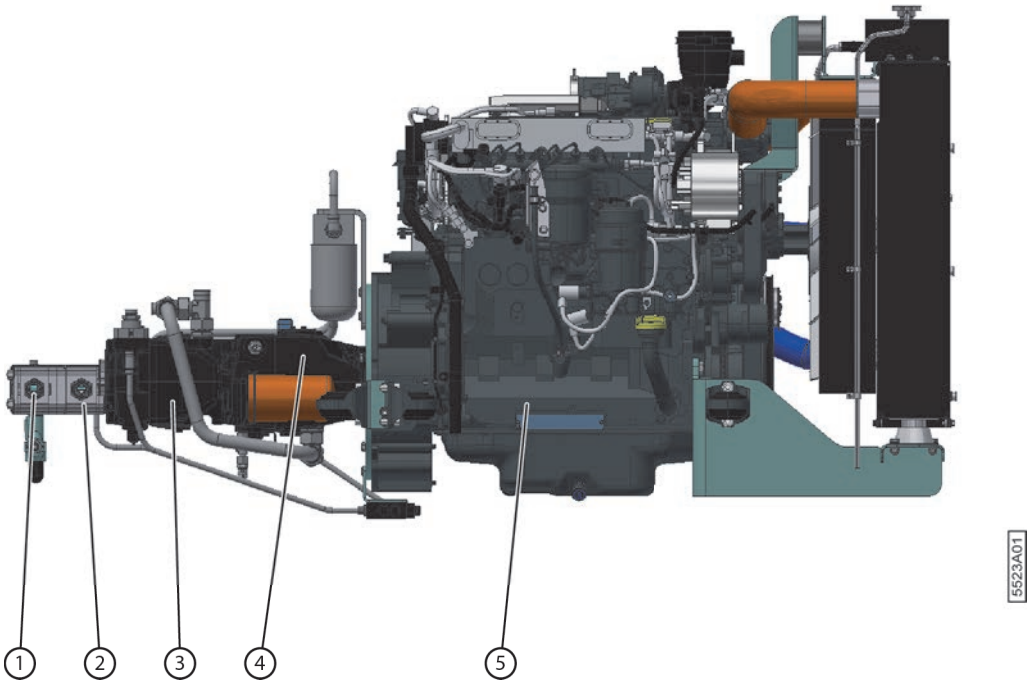


Fig. 40: Engine + hydraulic pumps

Pump	Function
1	Power steering + brake pedal
2	Movement of the working elements. Moving pick-up up and down. Opening and closing pressing chamber.
3	Working functions: driving the conveyor belts, driving the belts in the pressing chamber.
4	Driving functions: driving the wheels + Pick-up: driving the pick-up drum.
5	Engine

See also

- 8.2.60 Viewing the engine data on page 128
- 10.2.13 Checking the engine pipes on page 164
- 8.2.53 Reading the engine hours on page 126

2.2.34 The AdBlue tank

AdBlue is used as an additive in order to satisfy the current emission standards. The separate AdBlue tank (1) is located on the right-hand side at the rear of the machine. The quality and the level of AdBlue in the tank is measured.

For information about the storage of AdBlue and about the selection of the fuel used, see user manual supplied with the DEUTZ diesel engine.

Fig. 41: The AdBlue tank

See also

- 10.2.32 Checking the level of AdBLue on page 174
- 10.2.33 Topping up the AdBlue tank on page 174

2.2.35 Overview of the sensors

Various sensors are used on the machine. Some sensors can be disabled via the control screen.

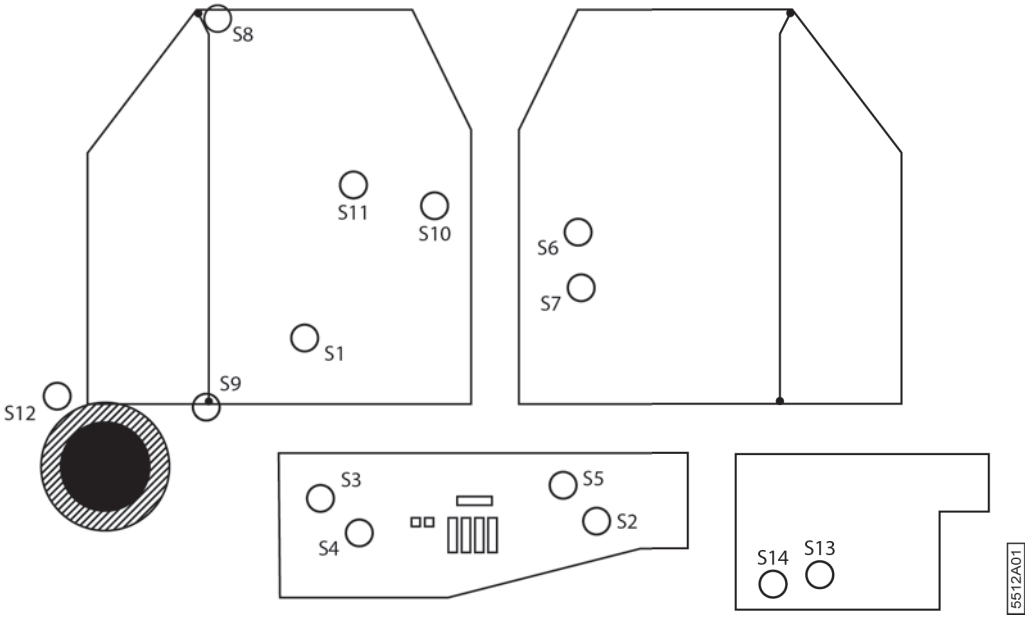


Fig. 42: Schematic overview of the sensors

Nr.	Explanation
S1	Speed of pressing chamber sensor
S2	Water level sensor
S3	Hydraulic oil level sensor
S4	Blockage in hydraulic oil feed sensor
S5	Blockage in air filter sensor
S6	Rope-break 1 sensor
S7	Rope-break 2 sensor

Nr.	Explanation
S8	Pressing chamber open sensor
S9	Pressing chamber closed sensor
S10	Balancing arm low sensor
S11	Maximum diameter of bale sensor
S12	Driving speed sensor
S13	Blockage in drive feed sensor
S14	Blockage in harvesting feed sensor

See also

- 10.2.51 Testing the operation of the sensors on page 185
- 8.2.67 Disabling a sensor on page 130
- 10.3.31 Replacing a sensor on page 217
- 8.2.67 Disabling a sensor on page 130

2.2.36 The tool cabinet

Fig. 43: Location of the tool cabinet

The tool cabinet (1) is located underneath the rope cabinet and can be closed. Upon delivery of the machine, the tool cabinet contains the following tools:

- Set of 6-32 flat spanners
- 6-piece set of screwdrivers
- Set of Allen keys (Umbraco)
- Gripping pliers (vice-grip)

See also

- 10.2.23 Cleaning the cabin on page 171

2.2.37 The humidity meter (option)

2.2.37.1 The control screen for the humidity meter

Fig. 44: Control screen humidity meter

Nr.	Part	Additional explanation
1	Light Button	Via this button, you can adjust the humidity limit.
2	Interval Button	Via this button, you can adjust the display interval for the humidity meter.
4	ON/OFF Button	Via this button, you can switch ON or switch OFF the humidity meter and delete all saved measurements.
3	Sum Button	Via this button, you can save the measurements and display the average of the saved measurements.
5	Display	The display shows the measurements and other information.

2.2.37.2 Switching ON the humidity meter

Press the button.

2.2.37.3 Measuring the humidity

As soon as the humidity meter is switched ON, the humidity is continuously displayed. These measurements are only useful when flax passes the sensor. The humidity meter performs a measurement 25 times per second, and calculates the average for all measurements within the set display interval (1, 2, 5 or 15 seconds). This average value is displayed as a measured value.

Several humidity values between 9% and 70% are displayed.

- For a value of less than 9%, the humidity meter displays the text L.

- For a value of more than 50%, the value flashes with the text H. The current display includes a flashing decimal point.

TIP
In practice, it is usually not so important to obtain an exact moisture percentage, and the objective is to facilitate an evaluation of the bale in terms of quality and storage life based on the values. Not the exact values, but the higher values must be carefully evaluated.

2.2.37.4 Adjusting the display interval of the humidity meter

You can enter the amount of time for displaying the humidity.

Press the ⌀ button and select an interval.

- 1 second
- 2 seconds
- 5 seconds
- 15 seconds

The selected display interval is briefly displayed. Then the measured value will once again be displayed.

2.2.37.5 Saving measurements to later obtain an average

Briefly press the ⊕ button to save the displayed measurement in the memory.

The number of measurements already saved in the memory is displayed for 2 seconds. Then the measured value will once again be displayed.

2.2.37.6 Displaying the average of the saved measurements

Press the ⊕ button for 4 seconds.

The number of saved measurements and the average humidity are displayed for 10 seconds. Then the measured value will once again be displayed.

The memory is not deleted.

2.2.37.7 Deleting all saved measurements from the humidity meter

1. Press the ⏻ button to disable the humidity meter.
2. Press the ⏻ button to activate the humidity meter.
   All saved measurements are deleted.

2.2.37.8 Adjusting the humidity limit

You can adjust the humidity limit between 12% and 50%. If the measured value exceeds the humidity limit, an acoustic signal is activated.

1. Press the 💡 button for 4 seconds.
   The set humidity limit is displayed.
2. Briefly press the 💡 button to increase the limit by one per cent.

Upon reaching the value of 50%, the value starts again from 12%.

3. Wait for 5 seconds, without pressing a button. Then the measured value will once again be displayed.

2.2.37.9 Switching OFF the humidity meter

Press the  button.

2.3 Options

Option	Explanation
Top plate	The top plate is mounted along the side of the top of the flax to make the pressing chamber narrower. This option is recommended for short flax.
An open foldable guide	The foldable guide is open so that this option is more suitable for stony ground.
Longer conveyor belts	This option enables you to benefit from a longer transition between the pick-up drum and the conveyor belts.
Smaller pick-up drum	If the standard pick-up drum collects too many stones and too much earth, a smaller pick-up drum can provide a solution.
The sprung front wheel	The machine can be supplied with a sprung front wheel as an option. This option enhances the comfort of the driver.
Tyres type Michelin BIBLOAD	These tyres have a symmetrical tyre profile. A spare wheel with this type of tyre can be used at any position.
Binding system with tubes	For this binding system, tubes are used instead of fingers.
Humidity meter	The humidity of the swath is measured during feeding-in and this is displayed in the cabin.

3 Operation

3.1 The rolling-up of the flax

The following mechanical operations take place during the harvesting of the flax:

1. The picking or harvesting of the flax.
2. The turning over of the flax.
3. The rolling-up of the flax.
4. The scutching of the flax.

3.2 The operation of the self-propelled flax baling machine

The driver drives the machine so that the front wheel is positioned over the centre of the swath. The height of the front wheel (2a) is adjusted so that all of the flax (1) is collected by the pick-up drums (3a). The 2 coiled springs (2b) ensure that the flax after the wheel is not taken upwards. The teeth of the pick-up drums collect the flax and transport it via the foldable guide to the conveyor belts (3b). Normally, the conveyor belts rotate slower than the pick-up drums, so that a thick layer of flax ends up on the conveyor belts. The conveyor belts transport the flax to the pressing chamber (4). The binding system, located between the conveyor belts and the pressing chamber, ensures that 2 ropes are taken by the flax. When rolling-up the flax in the pressing chamber, the layers are separated by the 2 ropes that are located in the centre of the bale (5). When the bale has reached the desired diameter, the bale is bound and then ejected from the pressing chamber. The bale can be ejected on its cylindrical side or on its flat side onto the field. The ropes are later used to unroll the bale when scutching the flax (= extraction and cleaning of the fibre).

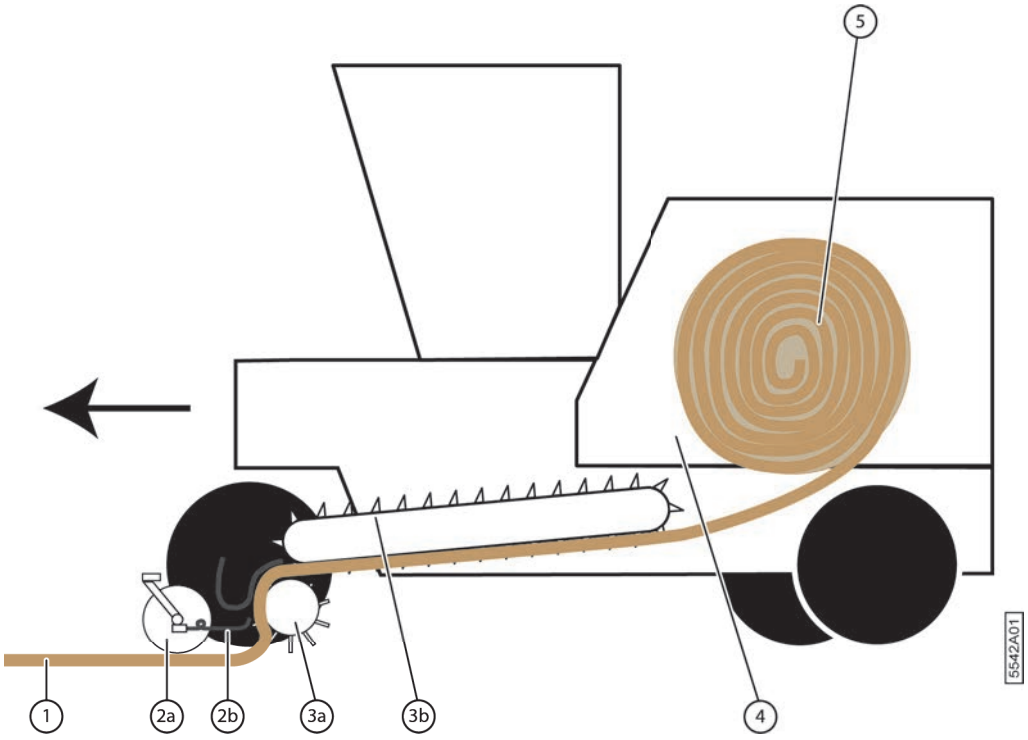


Fig. 45: Operation of the self-propelled flax baling machine

3.3 The quality of the work

The technical implementation of the rolling-up requires precision in order to achieve quality work.

The objective quality of the work during the rolling-up is determined by:

- The appearance of the bale
- The position of the ropes

The quality of the work is key to guaranteeing the quality of the scutching.

The stalks of the flax must be kept parallel in order to obtain a uniform and sufficiently thick layer of flax. Avoid stones, earth, etc. in as far as this is possible.

During the rolling-up, pay attention to the the following points:

- The alignment of the swath
- The uniform thickness of the swath

The thickening level, between 3 and 5, depends on the yield per hectare. For a large yield, you can remain around a figure of 3, unless a different figure is required for the scutching.

The following criteria determine the quality:

- The position of the ropes
- The operating speed
- The formation of bundles
- The condition of the flax
- The clamp pressure
- The condition of the machine

3.3.1 The position of the ropes

The two ropes (1) must be exactly in the centre of the swath over the entire length of the bale. The two ropes must be slightly apart (gap of approximately 5 centimetres) in order to guarantee optimal unrolling. A rope break must be immediately rectified.

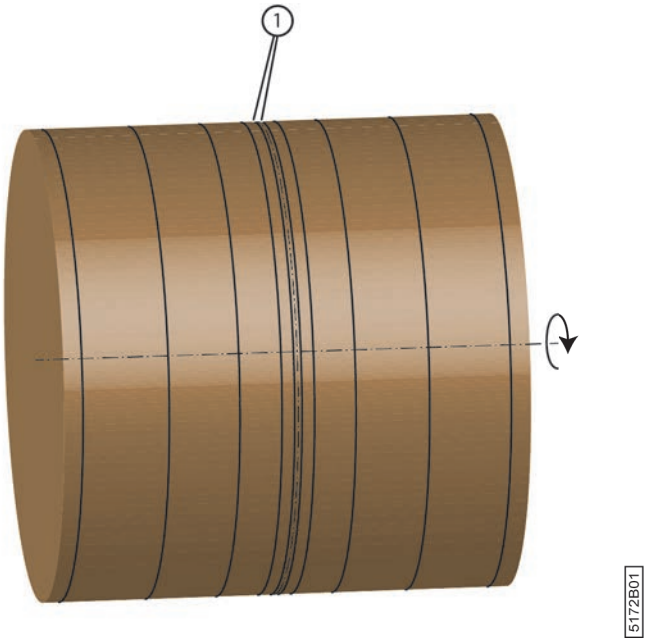


Fig. 46: Position of the ropes

3.3.2 The operating speed

Increased operating speed means that the pick-up is positioned lower and this consequently increases the quantity of earth and the number of stones in the flax. If many stones are present on the field, slow down the machine in order to decrease the number of stones.

3.3.3 The formation of bundles

After turning over the flax, bundles of flax can be present on the swath. It is recommended to spread open these bundles before rolling up the flax because these bundles can cause problems during the scutching.

3.3.4 The condition of the flax

The flax must be dry before you roll it up. The maximum threshhold value is 15% humidity. Pay attention to bundles of flax, because they need more time to dry. Sometimes it will be necessary to lift the flax or to turn it over again in order to speed up the drying process.

3.3.5 The clamp pressure

The clamp pressure can be adjusted. Prevent bales from becoming more than 300 kg. If the bales weigh more than 300 kg, they are more difficult to handle during scutching. The recommended pressure is 130 bar.

3.3.6 The alignment of the swath.

An optimally aligned swath makes the rolling-up easier. Swaths on top of each other, means that the machine has to be constantly stopped in order to move them. Never roll up two swaths at the same time! Rolling up two swaths at the same time will result in decreased yield and wasted time.

3.3.7 The condition of the machine

Keep the machine in good condition. Carefully follow the maintenance schedule. The pick-up and the transport belts must be in good condition and must not be damaged! The flax can remain suspended on damaged parts and cause a blockage. The poor condition of these parts can adversely affect the rolling-up.

4 Safety

4.1 Layout safety systems + safety precautions

4.1.1 Layout of safety systems

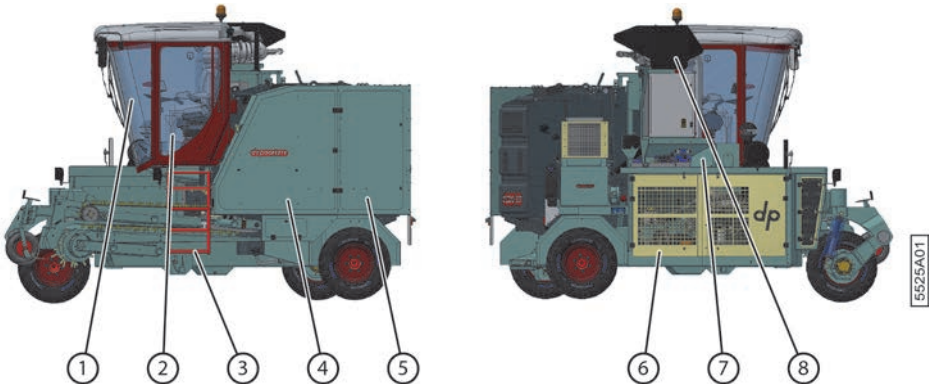


Fig. 47: Layout of safety systems

Nr.	Explanation
1	Fully enclosed cabin with emergency hammer and indicated emergency exits
2	Driver's seat with safety belt and presence sensor
3	Ladder
4	Protective door rope cabinet
5	Protective door rope cabinet
6	Protective door rope cabinet
7	Protective panel flexible exhaust pipe
8	Protective panel of the exhaust pipe
9	Safety valve pressing chamber door
10	Safety valve pressing chamber door
11	Mechanical lock for the pick-up

See also

- 4.1.5 Safety precautions on page 64

4.1.2 Location of the emergency stop button

The emergency stop button (1) is located in the cabin beside the joystick. When you press the emergency stop button, all movement of the machine stops, and the engine continues to run. Control is disabled.

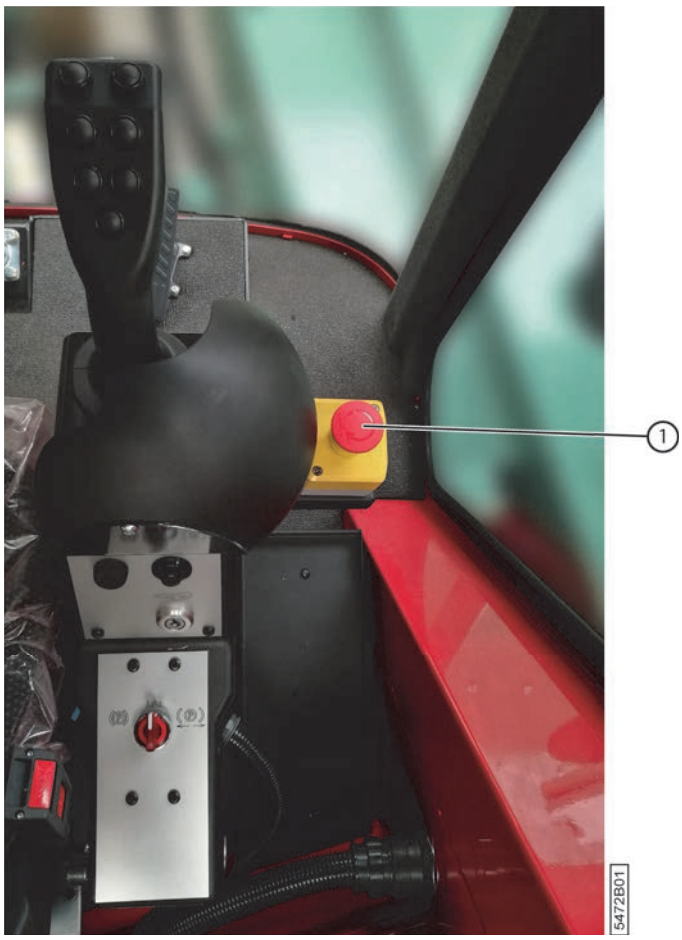


Fig. 48: Location of the emergency stop button

See also

- 4.6.2 Pressing the emergency stop button on page 75

4.1.3 Emergency hammer + emergency exits

The cabin is equipped with an emergency hammer (2). In the event of an emergency, this emergency hammer enables you to break the windscreen of the cabin, if you can no longer open the door. There are 2 emergency exits (1).

Fig. 49: The emergency hammer + emergency exits

4.1.4 First aid kit

The first aid kit (1) is located underneath the passenger's seat.

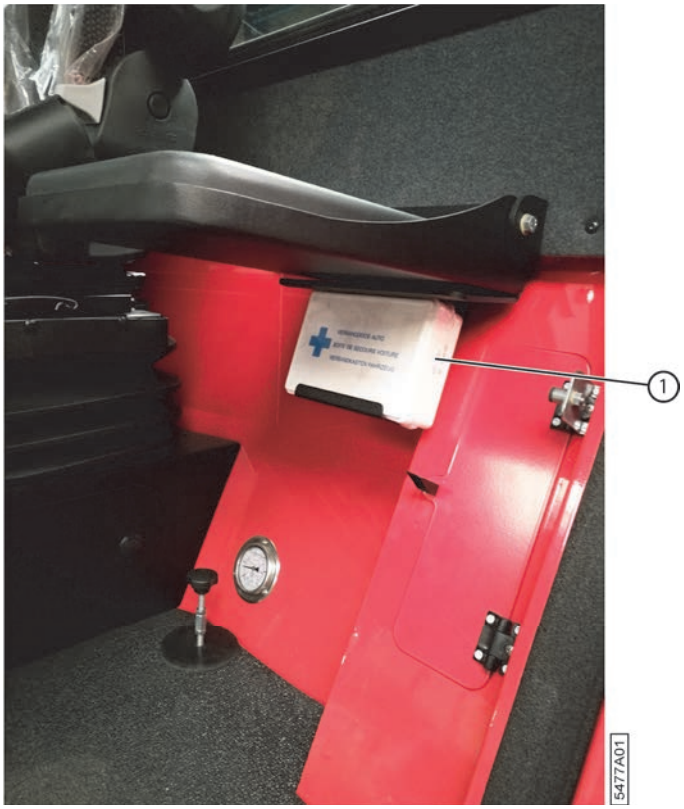


Fig. 50: First aid kit

4.1.5 Safety precautions

During the design phase, it was decided to eliminate or minimise the risk. Where risks exist, tangible safety precautions have been implemented, or the users are informed. An overview of the safety precautions that have been implemented is stated below:

- cabin, protects the user from moving parts, dust and noise.
- ladder provides safe access to the cabin
- protective doors for the engine
- protective grill for the radiators for the hydraulic oil and the airco
- protective door for the engine radiators
- protective doors for the rope cabinet
- presence sensor in the driver's seat
- emergency hammer, in the event of an emergency, this emergency hammer enables you to break the windscreen of the cabin, if you can no longer open the door.
- mechanical locks for the cylinders of the pressing chamber door
- mechanical lock for the pick-up
- safety valves for cylinders of pressing chamber door
- protective panel flexible exhaust pipe

See also

- 4.1.1 Layout of safety systems on page 61

4.1.6 Presence sensor in the driver's seat

In the Road mode or in the Field mode, a sensor detects the presence of the driver on the driver's seat. If the machine is moving and the driver leaves the driver's seat, an alarm is activated. If the alarm stays ON for the set time, then the machine decelerates and comes to a standstill. Before you can use the machine again, you must sit in the driver's seat and move the joystick back to the neutral position.

4.1.7 Safety via the software

Via the software, the following points are provided in relation to the safe use of the machine:

- You can only place the machine in a different mode when the joystick is in neutral and the machine is at standstill.
- The default setting is that the machine is always driven via the pedal in combination with the joystick. If the driver inadvertently moves the joystick, without pressing the pedal, nothing happens.

WARNING
The setting that determines how you drive (joystick, or pedal in combination with joystick) can be changed by the operator in the parameters!

4.1.8 Safety valves for cylinders of pressing chamber door

The safety valves (1) (2) ensure that the pressing chamber door cannot close in the event of a ruptured hydraulic hose for the cylinders of the pressing chamber door.

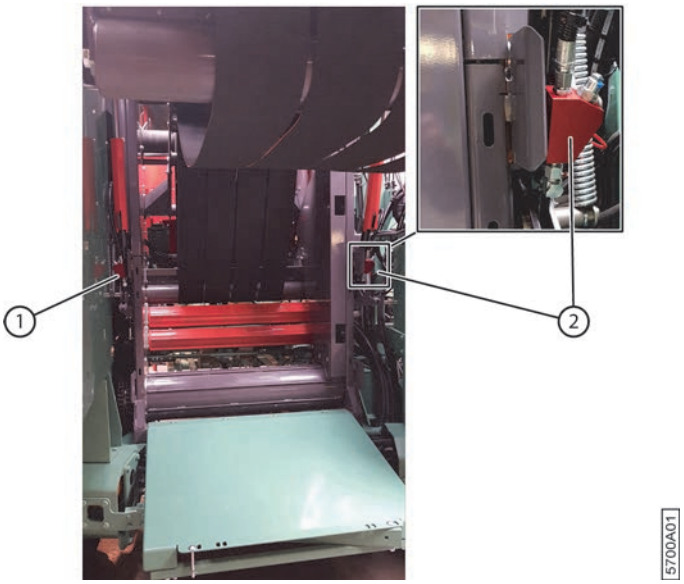


Fig. 51: The location of the safety valves

4.2 Meaning of the warning signals

Signal	Meaning
Reversing signal	A continuous signal sounds to warn the bystanders that the machine is reversing.
Pressing chamber opening signal	A continuous signal sounds to warn the bystanders that the pressing chamber is being opened. This is the same signal as the reversing signal.
Pressing chamber is being closed signal	A continuous signal sounds to warn the bystanders that the pressing chamber is being closed. This is the same signal as the reversing signal.

4.3 Safety regulations

This section describes the remaining risks from the risk analysis.

4.3.1 General safety regulations for persons

WARNING
Only use the machine for its intended purpose.

WARNING
The machine may only be operated by persons who have read the user manual and who are thus adequately informed about the operation, the control, and the maintenance of the machine as described in the user manual.

WARNING

NEVER use your hands to try to seal a hydraulic leak! High-pressure liquid can cause damage to your skin and clothing. Immediately summon a doctor if an accident occurs.

You can use paper or cardboard to easily detect leaks in a hydraulic system!

WARNING
Never stand behind the machine. You can become trapped between the machine and another object.

WARNING
Never leave the driver's seat without taking the ignition key with you.

WARNING
Never allow children, animals, unauthorised persons to come in the vicinity of the machine.

WARNING
It is strictly prohibited to touch moving parts or to be between moving parts. Keep your body, especially your face, hands and feet far away from moving parts.

WARNING
The zone for the machine is extremely dangerous. You may NEVER use your hands or feet or any other way to feed-in flax.

WARNING
A blockage may NEVER be rectified when the machine is still running.

CAUTION
Hold the steering wheel, without spokes between your fingers.

WARNING

Be aware of the risk of tipping over when you drive the machine on a slope or on hilly terrain!

- Drive slowly!
- Do not turn too abruptly!

WARNING
You may not enter or leave the driver's seat when the machine is operating.

WARNING
Keep away from high-voltage power lines when operating the machine. Contact between a high-voltage power line and the machine, or a discharge between the high-voltage power line and the machine can result in the death of the driver.

WARNING
In the event of lightning, remain in the cabin. Close all windows and doors. Do not touch the chassis of the machine. During lightning, an open field is not a safe location. Keep away from high trees, masts, high-voltage power lines. Stay at least 3 metres away from railings and fences. Bring yourself and your machine in safety. The best protection is a closed building, away from electricity and sanitary facilities.

4.3.2 Specific safety regulations for persons

WARNING
Always mechanically lock the cylinders of the pressing chamber before entering the pressing chamber.

WARNING
Never stand behind the machine, and never park behind the machine. The pressing chamber door can open and a bale can be ejected. You can be injured by the movement of the pressing chamber door or the ejected bale. Always maintain a safe distance.

4.3.3 Safety regulations for the machine

CAUTION
Ensure that the hydraulic connections are always clean and always fit plastic protective caps after disconnecting a hydraulic connection.

CAUTION
If you wish to close the pressing chamber, first remove the mechanical locks for the pressing chamber. If the mechanical locks for the pressing chamber are not removed, this can result in serious damage to the machine when closing the pressing chamber.

4.3.4 Safety regulations relating to the environment

ENVIRONMENT
For all products that are used in the machine and for all products that are used for the maintenance and the cleaning of the machine, follow the current local statutory regulations.

ENVIRONMENT
Store new and discharged products in accordance with the current local statutory regulations.

ENVIRONMENT
Spilled liquid must be removed in accordance with the regulations for the liquid and in accordance with the current local statutory regulations.

4.4 Personal protection equipment

Item of personal protection equipment	Who?	When?
Safety shoes	Operator maintenance technician	Always
Helmet	Maintenance technician	If, during the work, objects of parts can fall onto your head.
Safety spectacles	Operator maintenance technician	For all work where dust- or other particles can end up in your eyes.
Safety gloves	Operator maintenance technician	For all work on the machine.
Hearing protection	Operator maintenance technician	If the noise level exceeds 85 dB. This is the case at the side of the machine where the engine is located.
Breathing mask	Operator maintenance technician	For all work where dust and/or substances that are hazardous to respiration are released.

Item of personal protection equipment	Who?	When?
Reflective clothing	Operator maintenance technician	For work in the dark.

4.4.1 Safety regulations for personal protection

WARNING
Ensure that work clothing fits well. Do not wear loose clothing or jewellery. If you wear these, you can become trapped by rotating machine parts.

WARNING
Conceal long hair, so that it is not possible for long hair to become trapped.

4.5 Signs and symbols

The machine is equipped with a sticker stating safety instructions.

WARNING
Ensure that safety instructions always remain visible. Regularly clean the safety instructions, and if the safety instructions are damaged or illegible, replace them. The safety instructions can be ordered from Depoortere NV.

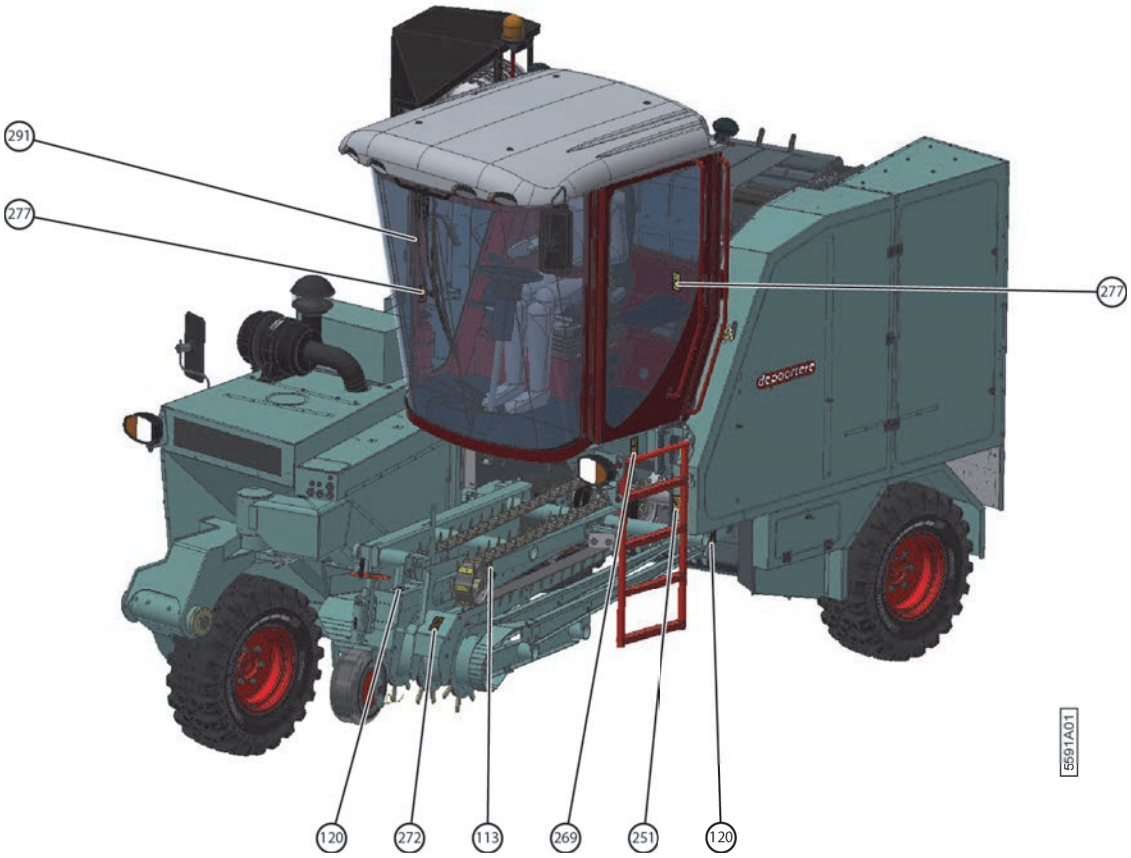


Fig. 52: Front view

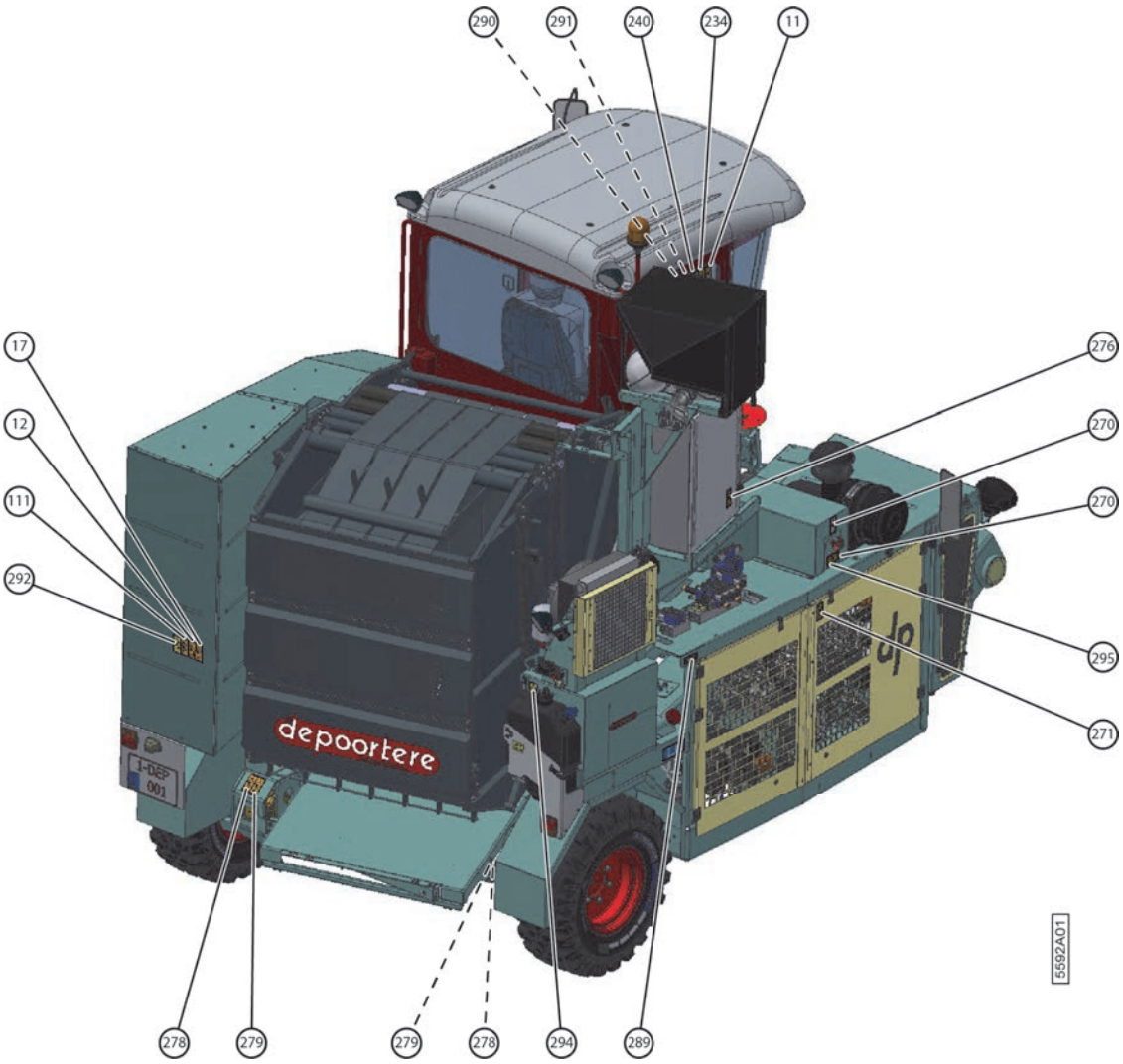


Fig. 53: Rear view

Nr.	Figure	Description	Name
11		Caution! Read the user manual before using the machine.	PICTO11

Nr.	Figure	Description	Name
12		Risk of crushing Never stand in front of or behind the machine.	PICTO12
17		Risk of crushing Risk of crushing between the pressing chamber door and the machine.	PICTO17
111		Risk of bumping into Risk of ending up underneath the door of the pressing chamber. Always install a red safety device to block the door cylinder of the pressing chamber before you perform work on the pressing chamber.	PICTO111
113		Risk of bumping into object Secure the object, so that nobody can bump into it.	PICTO113

Nr.	Figure	Description	Name
120		Risk of crushing Never reach into the machine. Risk due to moving objects	PICTO120
234		Caution! Before performing maintenance work: switch off the engine, remove the ignition key and read the operating instructions and the safety instructions.	PICTO234
240		Risk of perforation Never place your hands near to a leak in a hydraulic pipe. Consult the user manual before performing work on the hydraulic system of the machine.	PICTO240
251		Risk of crushing Never reach into the machine You can be dragged into the machine and crushed.	PICTO251

Nr.	Figure	Description	Name
269		Risk of falling Do not climb onto the machine.	PICTO269
270		1 Remove the ignition key. 2 Wait at least 3 minutes. 3 Remove the battery key.	PICTO270
271		Caution! No access for unauthorised persons	PICTO271
272		Risk of cuts Maintain sufficient distance from the machine.	PICTO272

Nr.	Figure	Description	Name
276		Risk of electrocution The cabinet contains live electrical components.	PICTO276
277		Caution! Only 1 person may be present on and around the machine.	PICTO277
278		Caution! Indication of the place where the machine can be lifted.	PICTO278
279		Caution! Indication of the place where the machine can be jacked up.	PICTO279

Nr.	Figure	Description	Name
289		Diesel	PICTO289
290		Caution! Tightening bolted connections	PICTO290
291		Check the tyre pressure. Consult the user manual.	PICTO291
292		Risk of crushing Danger of ending up underneath a bale. Maintain sufficient distance from the machine.	PICTO292

Nr.	Figure	Description	Name
294		The hydraulic tank	PICTO294
295		Caution! Consult the manual to learn what you must do before welding!	PICTO295

4.6 Emergencies

4.6.1 Fire: the bale can catch fire

1. Immediately remove the bale from the pressing chamber and hold the door of the pressing chamber open.
2. Move the machine away from the flax and from the flax still to be collected and from other flammable materials.
3. Extinguish the fire using a fire extinguisher

4.6.2 Pressing the emergency stop button

In the event of an emergency, you can press the emergency stop button in the cabin. This disconnects the electrical power and all movement is stopped. The engine of the machine continues to run in order to prevent damage to the hydraulic components as a result of pressure loss.

CAUTION
Pressing the emergency stop button activates the parking brake!

TIP
To also stop the engine, turn the ignition switch fully counter-clockwise.

TIP
To also interrupt the power supply, turn the battery switch fully counter-clockwise.

See also
- 4.1.2 Location of the emergency stop button on page 61

4.6.3 Switching off the engine

Turn the ignition switch counter-clockwise.

TIP
Since the diesel engine is switched off, the engine shaft stops turning. The hydraulic pumps that are directly connected, stop building up pressure.

CAUTION
Movement is still possible, due to desired use of a manual control or due to an undesired defect.

4.6.4 Switching OFF the electrical power

In the event of an emergency, you can use the battery key to switch OFF electrical power to the machine. This action isolates electrical power from the entire machine including the engine and the controls.

Only do this in the event of an emergency: in all other situations, you first switch OFF the ignition to the machine in the usual manner.

WARNING

Switching OFF the electrical power using the battery key, without switching OFF the ignition to the machine, and without first waiting for 3 minutes, is only permitted in the event of an emergency!

If this is done, the engine is not stopped in the usual manner, thus causing AdBlue to remain in the pipes, with possible fault messages being generated.

See also
- 8.2.4 Stopping the machine on page 101

4.7 Hazardous substances

CAUTION
Carefully read the Safety Information Sheets for the hazardous substances

The user must request the latest Safety Information Sheets from the supplier for the following products:

- AdBlue
- Hydraulic oil
- Engine coolant
- Fuel (Diesel)
- Windscreen washer liquid
- Engine oil
- Lubricating grease
- Airco coolant

5 Transport and storage

5.1 Moving the machine

5.1.1 Loading the machine onto the lorry

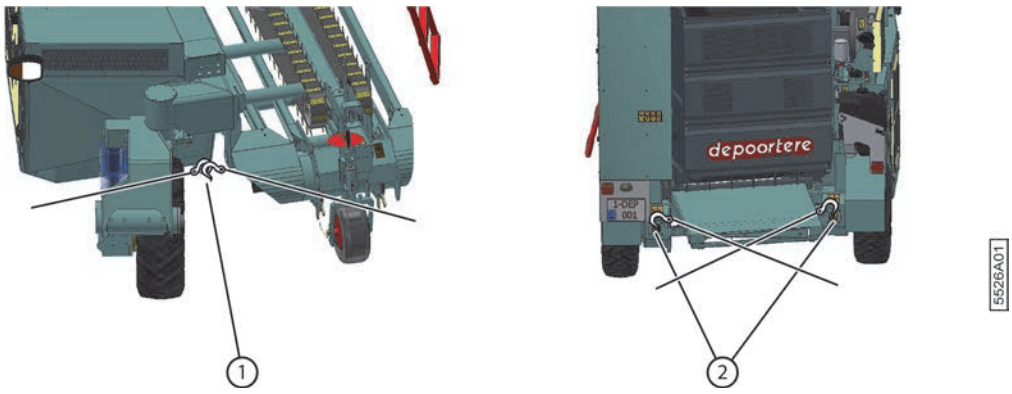


Fig. 54: Securing the machine to the lorry

1. Select a completely level zone for loading the machine.
2. Fence off the zone where the machine will be loaded. Ensure that the safety zone is large enough, so that if the machine tips over, sufficient space exists to run away from a tipping load.
3. Keep unauthorised persons away from this zone.
4. Place the machine in the LOAD mode.
5. Drive the machine onto the loading platform of the lorry.
6. Use wheel chocks to prevent the machine from rolling away.
7. For the version with a sprung front wheel, the chassis must be supported at the front by blocks so that the machine can be secured to the loading platform.
8. Use chains or tension straps to secure the machine

CAUTION

- Secure via 2 chains or tension straps connected to the towing eye at the front (1).
- Secure via 2 crossed chains or tension straps connected to the towing eyes at the rear (2).

5.1.2 Unloading the machine from the lorry (preparation)

1. Select a completely level zone for unloading the machine.
2. Fence off the zone where the machine will be unloaded. Ensure that the safety zone is large enough, so that if the machine tips over, sufficient space exists to run away from a tipping load.
3. Keep unauthorised persons away from this safety zone.
4. Disconnect the chains or tension belts.

- Disconnect the 2 chains or tension belts from the towing eye (1) at the front.

- Disconnect the 2 crossed chains or tension straps connected to the towing eyes at the rear (2).

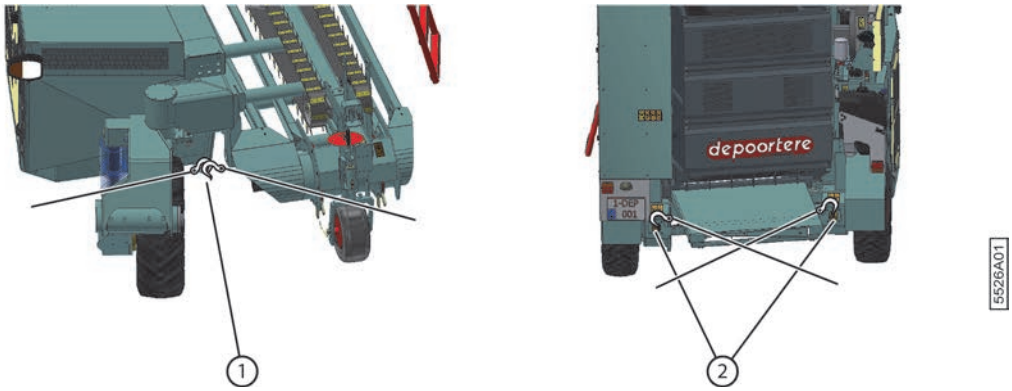


Fig. 55: Release the machine

5. Remove the wheel chocks.

See also

- 5.1.3 Driving the machine off the lorry on page 78

5.1.3 Driving the machine off the lorry

First of all, ensure that the machine is prepared for driving off the lorry. See 5.1.2 Unloading the machine from the lorry (preparation) on page 77.

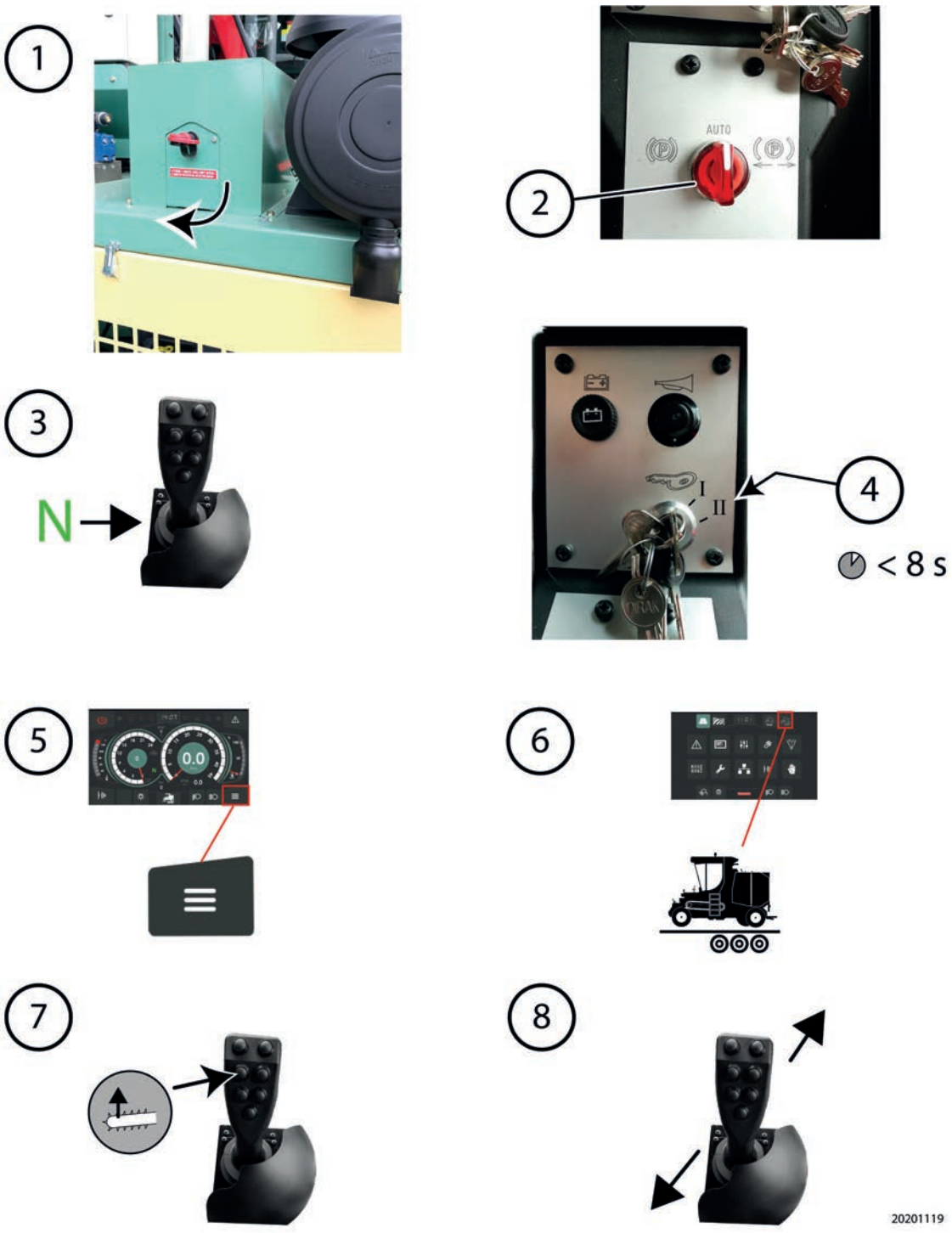


Fig. 56: Steps to be performed when driving the machine off the lorry

1. Place the battery key to ON.
2. Place the switch on the control console to AUTO.
3. Place the joystick to NEUTRAL.
4. Turn the ignition switch to position 2, and release it when the engine starts.

   Do not start for longer than 8 seconds. This prevents the battery from becoming fully discharged, or the starter motor and engine cabling from becoming too hot. Wait 15 to 20 seconds between the 1st and 2nd starting attempt so that the starter motor and the engine cabling can cool down.
5. Place the machine in the LOAD mode.

6. Raise the pick-up by pressing button 4.
7. Carefully move the joystick in the desired direction.

See also

- 5.1.2 Unloading the machine from the lorry (preparation) on page 77

5.2 Storing the machine

Check the machine very carefully so that it is ready to start in the next season. A thorough check and maintenance of the machine can save extra costs, minimise downtime, and enhance the operational reliability of your machine.

When storing the machine, perform the points in the following checklist:

1. Check that flax is no longer present in the machine.
2. Follow the maintenance plan.
3. Follow the lubrication plan.
4. Fill the fuel tank.
5. Place the machine in an area that satisfies the following conditions.
   - Entry to the area is prohibited for unauthorised persons.
   - The area is dry and protects the machine against the effects of weather.

     For example: Sunlight adversely affects rubber and plastic.
   - NO fertilisers containing ammonia are stored in the area.

     When humidity is present, ammonia reacts with certain metals.
   - The area is closed off to vermin.
6. Clean all hydraulic cylinders, lubricate them with grease, and fully retract them.
7. Follow the instructions for storing a machine with AdBlue.
8. Lubricate all threaded rods, adjusting bolts, and bare machine parts using grease or oil to prevent rust.
9. Jack up the machine and place it on supports in order to relieve the load on the tyres.
10. Check the full operation of the machine. Replace worn parts.
11. Check the bolted connections.
12. Connect the battery to a charger so that crystals of lead sulphate do not form on the electrodes of the battery.

See also

- 10.2.10 Cleaning the machine using a pressure washer on page 162

5.2.1 Regulations for storing a machine with AdBlue

The following regulations are applicable in the event of switching off an engine with a SCR system for a prolonged period.

After switching off the SCR system in accordance with the instructions (wait at least 3 minutes so that the system can complete its full cycle), the machine can, depending on the ambient temperature, be taken out of service for a maximum of 4 months in a deactivated state.

At standstill

	Duration of the storage # 2 months	Duration of the storage between 2 and 4 months
Ambient temperature to be respected	Between -40 °C and 40 °C	Between -40 °C and 25 °C

The following conditions must be taken into account:

- If the machine has been at standstill for a prolonged period, this must take place in a covered area (for example, in a garage or hall).
- Completely fill the reservoir with AdBlue.

  Evaporation of the water component of AdBlue must be prevented.
- Do not disconnect any electrical or hydraulic connections.

5.2.2 Instructions for putting a machine with AdBlue back into service after a prolonged period at standstill

If the standstill exceeds four months, the following procedure must be followed:

1. Completely empty the tank.
2. Completely fill the tank with new AdBlue.
3. Replace the filter cartridge of the feed pump.
4. Allow the engine to reach operating temperature.
5. Load the engine by carefully accelerating. This increases the pressure by pressurising and modifying the AdBlue dosage.

If a fault message is displayed on the control screen:

1. Stop the engine.
2. Wait at least 3 minutes so that the system can perform its complete cycle.
3. Start de engine several times if necessary.

   If the fault message does not disappear, contact Depoortere NV.

5.2.3 Draining the AdBlue tank

Carefully read the Safety Information Sheet for the AdBlue used.

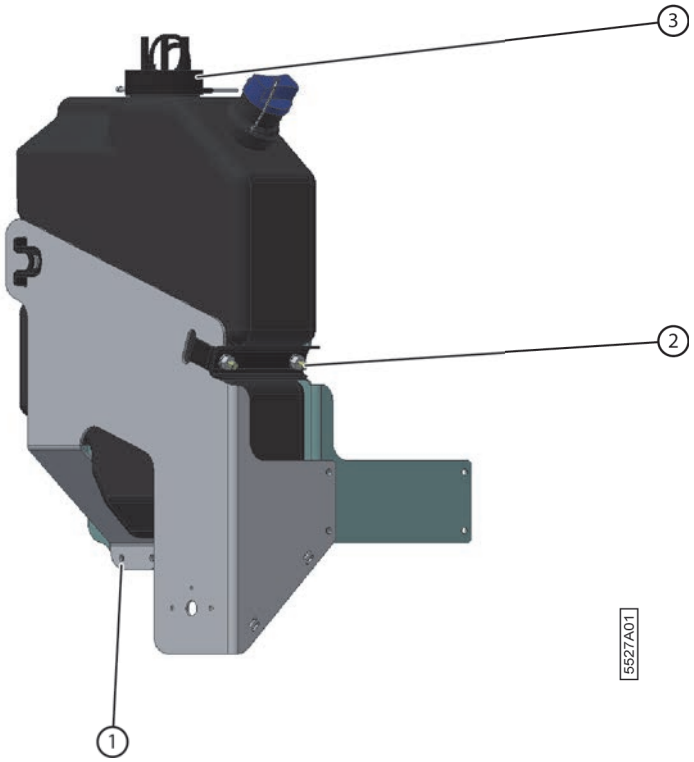


Fig. 57: Removing AdBlue tank

1. Disconnect all connections (3) to the tank.
2. Disconnect the plate (1) from the chassis by unscrewing the bolts.
3. Remove the bracket (2).
   The plate (1) can then be completely disconnected.
4. Remove the tank from the machine.
5. Unscrew the filler cap and drain the tank.

5.2.4 Storing AdBlue

The shelf life and quality of the AdBlue depends on the conditions in which the AdBlue is stored and for how long it is stored.

Take the following points into account:

- AdBlue slowly starts to decompose at -11°C and above +35°C.
- Avoid direct sunlight on unprotected stored stock of AdBlue.
- Drums of AdBlue may not be stored for longer than one year!
- AdBlue freezes when the ambient temperature is -11°C.
- AdBlue may remain in the tank for a maximum of 4 months.

5.2.5 Checklist for starting engine after storage during winter

After storing the machine during winter, you must always check the following items before restarting the engine.

NOTE
The checklist below is only intended for the engine, and not for the entire machine. Thus carefully perform all tasks included in the maintenance schedules. This ensures that the entire machine is reading to be started.

Check	OK?
Check the filter elements of the air filter. If necessary, replace them.	
Check the level of engine oil. If necessary, top up the engine oil or replace it.	
Check level of coolant for the engine. If necessary, top up the level.	
Check the condition of the radiator. If dirty, clean the radiator.	
Check the fuel feed system. Unscrew the drain plug (5) from the fule filter to drain the water.	
Use a refractometer to check the quality of the AdBlue. If the value is NOT OK, then empty the AdBlue tank, then fill it with new AdBlue.	
Check that the filling filter of the AdBlue tank is not damaged or punctured.	
Check that the AdBlue tank is clean, and check that there is no crystallisation.	
Replace the breather filter of the AdBlue tank if it is blocked.	
Check the engine for engine oil leaks, coolant leaks, or fuel leaks.	
Check the engine for contamination (flax, grass, mud, ...). Remove this contamination.	
Check the condition of the battery.	
Check the condition of the belts. The belts are more susceptible to wear in a dusty environment. If necessary, replace them.	

6 Assembly and installation

6.1 What is supplied with the machine?

Check that the following items have been supplied; if not supplied, contact your distributor.

- 2 ignition switch keys
- 2 door keys for the cabin
- 2 keys for opening the electrical cabinets
- 2 keys for opening the tool cabinet
- User manual for the machine
- User manuals for the engine
- User manual for the driver’s seat
- User manual for the radio
- User manual for the optional camera monitors
- Spare parts list
- EC declaration
- Fire extinguisher
- First aid kit
- Warning triangle
- Fluorescent jacket

7 Putting into service

7.1 Checklist for putting into service

After receipt of your machine, carefully check the list below.

Part	Check	OK?
Wheels	10.2.25 Checking the tyre pressure on page 172	
	10.2.26 Tightening the wheel nuts on page 172	
	10.2.27 Checking the operation of the brakes on page 173	
Engine	Check the engine oil level. See manual supplied for DEUTZ engine.	
	Check the coolant level. See manual supplied for DEUTZ engine.	
	Check the air filter for the engine. See manual supplied for DEUTZ engine.	
	10.3.16 Checking the fuel level on page 208	
	10.2.32 Checking the level of AdBLue on page 174	
Cabin	7.1.1 Checking that the user manuals are present on page 87	
	The users have read the user manuals.	
	10.2.34 Checking level of the windscreen washer liquid. on page 175	
	10.2.36 Checking the air filter in the cabin on page 176	
Hydraulic system	10.2.38 Checking te level of the hydraulic oil on page 177	
	10.2.43 Checking the hydraulic system for leaks on page 180	
Electrical installation	10.2.45 Checking the battery on page 181	
	10.2.47 Checking electrical system on page 181	
Lubrication	Check that all lubrication points have been optimally lubricated. See the lubrication plan.	

After all items on the checklist are OK, the machine can be used in accordance with the instructions stated in this user manual.

7.1.1 Checking that the user manuals are present

1. Check whether the following user manuals are present:
   - User manual for the machine
   - User manual for the engine, the driver’s seat, the radio.
   - User manuals for the camera monitors (if present).
2. If a user manual is not present, ask your distributor for a new copy.

7.2 Loading the rope

So that the binding system operates optimally, it is recommended to use Sisal, jute or flax rope in a ratio of 500 or 750 metres per kg.

The rope is loaded in 3 steps:

1. 7.2.1 Loading and connecting the rope coils on page 88.
2. 7.2.2 Inserting the rope into the rope tensioning system on page 89.
3. 7.2.3 Inserting the rope into the binding rope system. on page 90.

7.2.1 Loading and connecting the rope coils

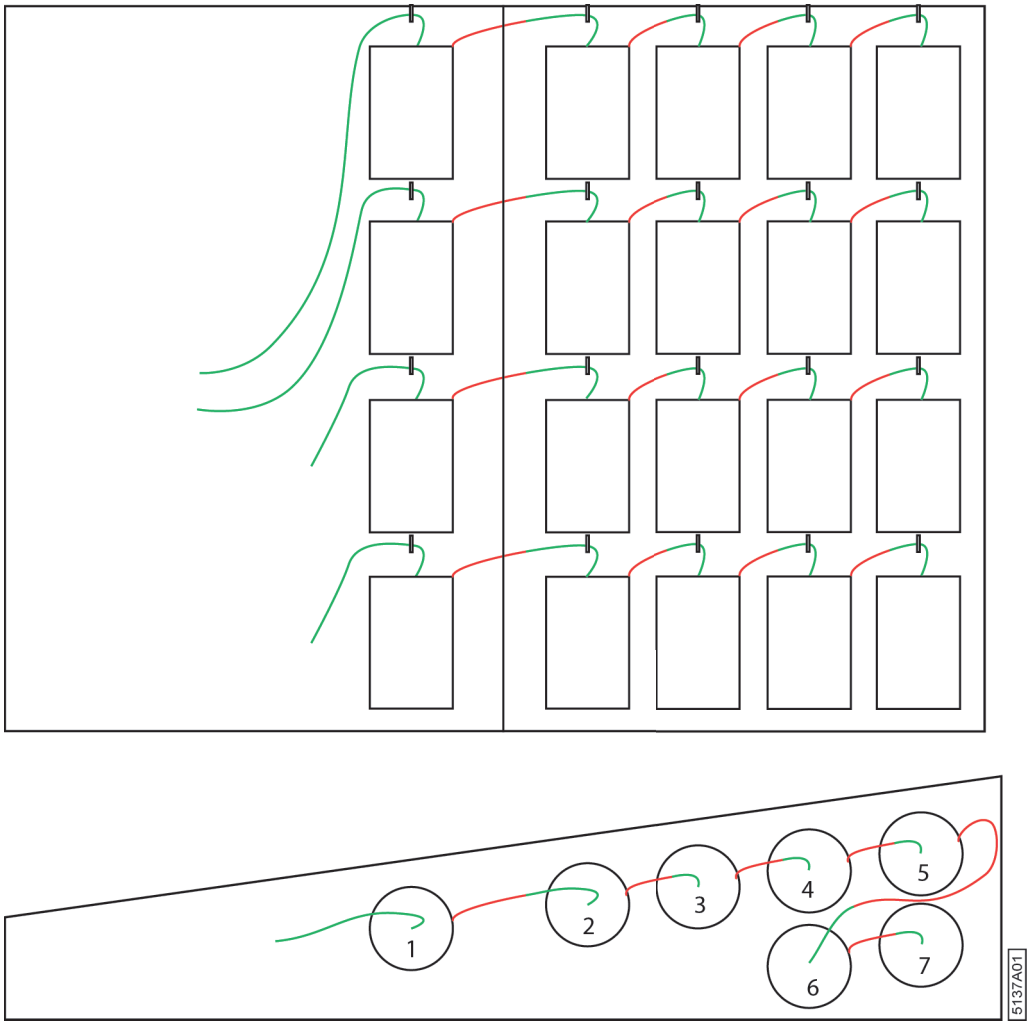


Fig. 58: Loading and connecting the rope coils

1. Open the doors of the rope cabinet.
2. Place the rope coils in the trays of the cabinet.
3. Thread the start of rope coil 7 through the ring, and connect it to the end of rope coil 6 by tying a square knot.

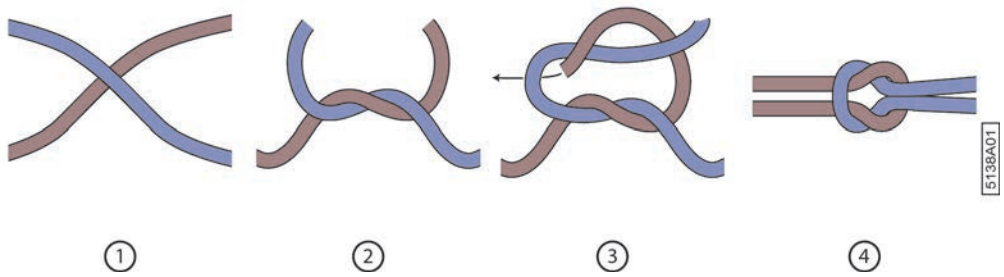


Fig. 59: Tying a square knot

4. Connect the start of rope coil 6 to the end of rope coil 5 by tying a square knot.
5. Thread the start of rope coil 5 through the ring, and connect it to the end of rope coil 4 by tying a square knot.
6. Repeat step 5 for the other rope coils.
7. Repeat from step 3 for the other levels.
8. Pull the ends of the 2 ropes from the uppermost levels or from the lowermost levels to the rope tensioning system.
9. Feed the rope to the rope tensioning system.

7.2.2 Inserting the rope into the rope tensioning system

Ensure beforehand that the rope coils are optimally loaded and connected. See 7.2.1 Loading and connecting the rope coils on page 88.

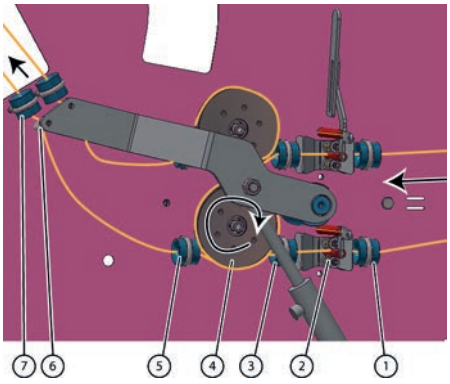


Fig. 60: Inserting the rope into the rope tensioning system

1. Insert the end of the lowermost rope through the rope guide (1).
2. Pull the threaded rod of the rope tensioners towards you and insert the rope through the rope guide (1).
3. Insert the rope through the rope guide (3).
4. Wind the rope once around the break monitoring tool (4).
5. Insert the rope through the rope guide (5).
6. Insert the rope through the eye-bolt (6).
7. Pull the rope through the rope guide (7) and pull it through the opening in the cabinet.
8. Insert the uppermost rope through the rope tensioning system in the same way.
9. Insert the rope into the binding rope system.

7.2.3 Inserting the rope into the binding rope system.

Ensure beforehand that the rope is optimally inserted into the rope tensioning system. See 7.2.2 Inserting the rope into the rope tensioning system on page 89.

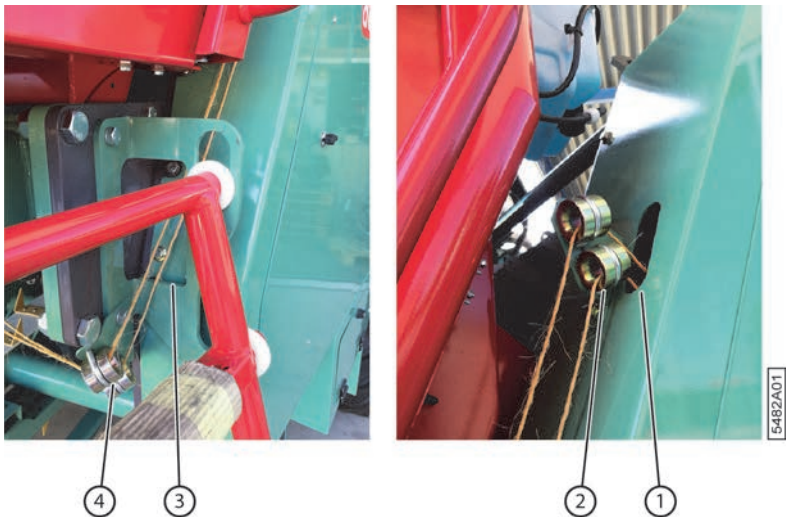


Fig. 61: Inserting the rope from the cabinet into the binding rope system

1. Pull the rope from the opening in the cabinet (1) through the rope guide (2).
2. Pull the rope through the opening (3) to the ladder and through the rope guide (4).

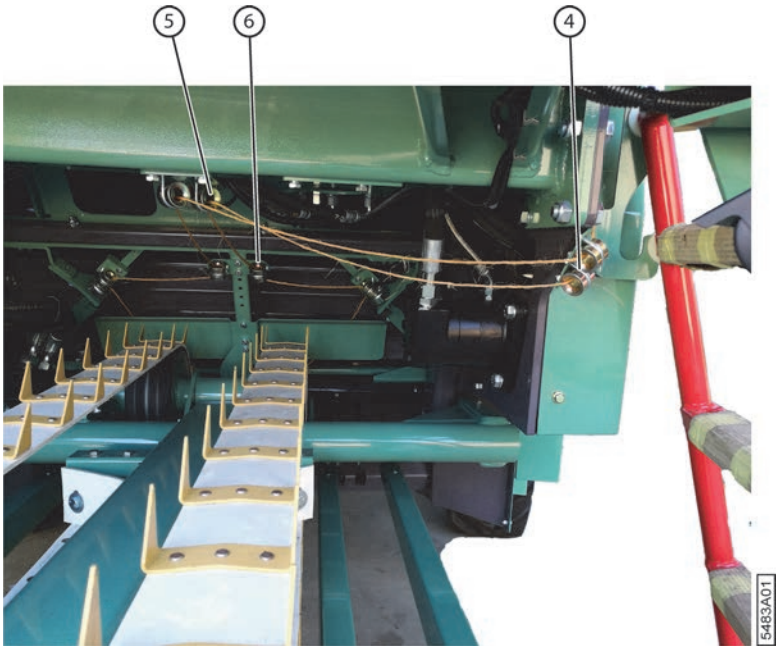


Fig. 62: Bringing the rope to the binding rope system

3. Pull the rope through the rope guide (5).
4. Thread the rope into the binding rope system through each of the rope guides in turn (6), (7) and (8).

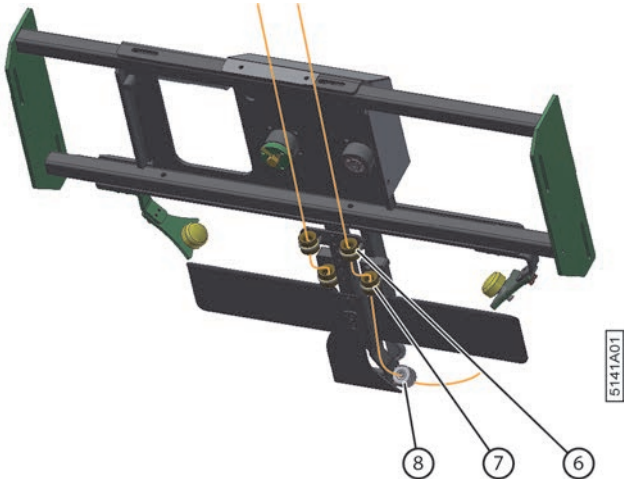


Fig. 63: Inserting the rope into the binding rope system.

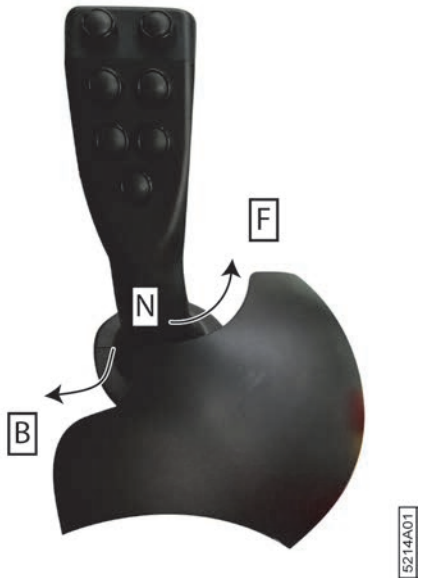
5. Pull the rope approximately 10 cm further out of the last rope guide (8).
   The rope is taken by the flax.
6. Use the same procedure to insert the other rope into the binding rope system.

8 Control

8.1 Control elements

8.1.1 The joystick

Positions of the joystick



The position of the joystick determines the driving direction and the speed of the machine. For example: the further you push the joystick forwards, the faster the machine will move forwards. The joystick does NOT automatically return to the neutral position! The joystick can be placed in the following positions:

- forwards: the machine moves forwards (F)
- neutral: the machine does not move (N)
- backwards: the machine moves backwards (B)

Functions of the buttons on the joystick

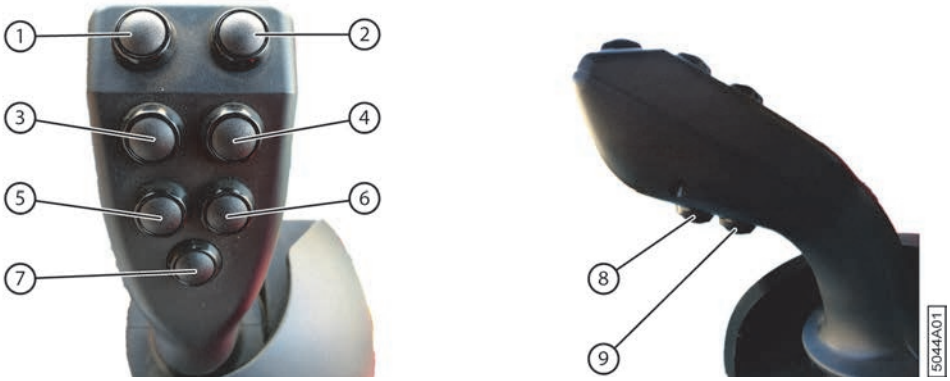


Fig. 64: Joystick

Nr.	In Road mode	In Field mode	In Manual mode	In Loading mode	In Stationary mode
1	-	Press and hold: Open pressing chamber door In AUTO mode at a speed of 10 km/h or higher: the DPA increases.	Press and hold: Open pressing chamber door	Press and hold: Open pressing chamber door	-
2	-	Press and hold: Close pressing chamber door In AUTO mode at a speed of 10 km/h or higher: the DPA decreases.	Press and hold: Close pressing chamber door	Press and hold: Close pressing chamber door	-
3	Press and hold: Raise pick-up	Press and hold: Raise pick-up (without stopping the cycle)	Press and hold: Raise pick-up	Press and hold: Raise pick-up	-
4	Press and hold: Raise pick-up	Press and hold: Raise pick-up + stop cycle	Press and hold: Raise pick-up	Press and hold: Raise pick-up	-
5	Press once: Left-hand indicator	Press once: Lower pick-up (without stopping the cycle) Press and hold: after 2 seconds, the pick-up rotates in the opposite direction for as long as you keep the button pressed.	Press once: Lower pick-up	Press once: Lower pick-up	Press once: Left-hand indicator
6	Press once: Right-hand indicator	Press once: Lower pick-up + start cycle Press and hold: increases the speed of the conveyor belts. Upon releasing the button, the speed decreases to the speed set by default.	Press once: Lower pick-up	Press once: Lower pick-up	Press once: Right-hand indicator
7	-	Press once: Bind	Press once: Bind	-	-
8	-	Press once: Automatic mode active / non-active. For an active work cycle, press and hold until a message is displayed and until the unblocking starts. To stop the function, press and hold the button for longer than 2 seconds or select non-active for the work cycle.	-	-	-

Nr.	In Road mode	In Field mode	In Manual mode	In Loading mode	In Stationary mode
9	Main beam headlights to ON. Press and hold to keep the main beam headlights ON.	Press once: Work cycle active / non-active Stop binding.	Stop binding.	-	Main beam headlights to ON. Press and hold to keep the main beam headlights ON.

8.1.2 Visual overview of joystick functions

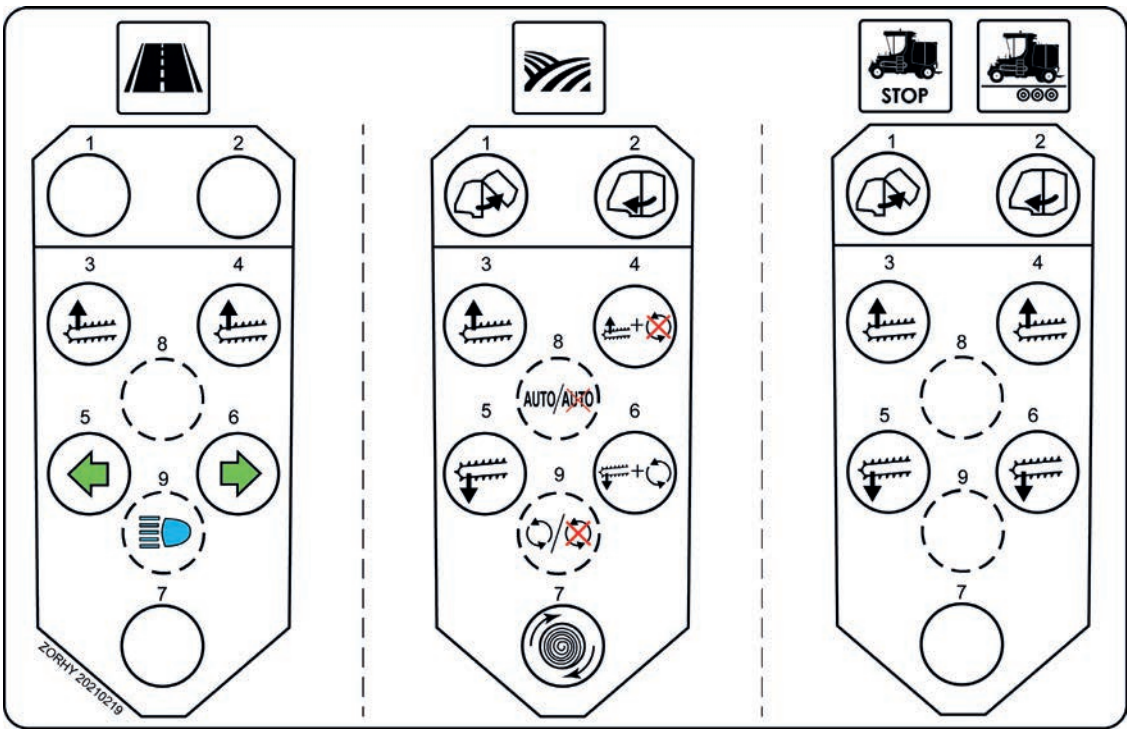


Fig. 65: Visual overview of the joystick functions

8.1.3 The control console

Top control console

Fig. 66: Top control console

Nr.	Explanation
1	Battery lamp The battery lamp is lit as soon as the ignition switch is in position 1. The battery lamp is extinguished when the engine is running and the battery is being charged.
2	Ignition switch key • Position 0: Engine OFF • Position 1: Battery ON Radio, sidelights, dipped headlights and/or main beam headlights, etc. can be switched ON. Airco and work lights are not used. • Position 2: Start engine
3	Horn

Bottom control console

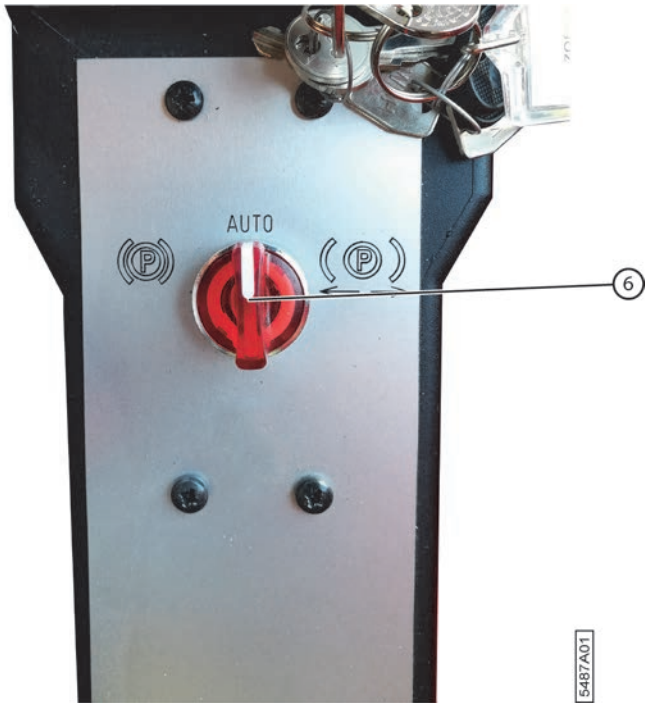


Fig. 67: Bottom control console

Nr.	Explanation
6	Parking brake

8.1.4 The parking brake

The parking brake is a 3-position switch on the control console. It is recommended to leave the parking brake switch in AUTO (automatic). The other positions of this switch may only be selected in exceptional cases.

If the the joystick is in the NEUTRAL position, then:

- upon detecting that the machine is stationary, the parking brake is activated.
- in the Loading mode, the parking brake is immediately activated.
- if the wheel sensor is deactivated, the parking brake is automatically activated after 6 seconds.

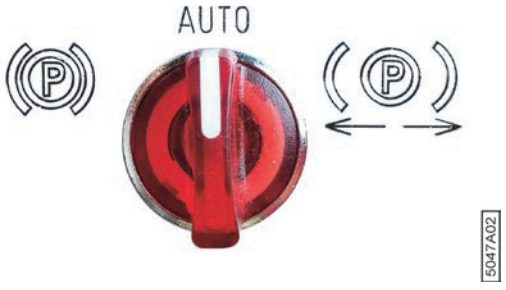


Fig. 68: Parking brake

Position	Explanation	Use
Left	Parking brake activated.	Only to be used for a slope where the parking brake is not automatically activated because the machine is not yet completely stationary.

Position	Explanation	Use
Centre	Automatic The parking brake is automatically activated when the joystick is in neutral and the machine is stationary.	During normal use.
Right	Parking brake deactivated.	Only to be used when towing the machine when the engine is still running.

NOTE
If you switch OFF the ignition of the machine, the parking brake will be activated regardless of which position is selected on the 3-position switch!

See also
- 10.3.1 Towing the machine (with operational engine) on page 194

8.1.5 The accelerator pedal

By operating the accelerator pedal (2), the engine will run from 0% to 100% of the set revs./minute. Depending on the mode selected, the revs./minute and/or the speed of the machine will vary accordingly.

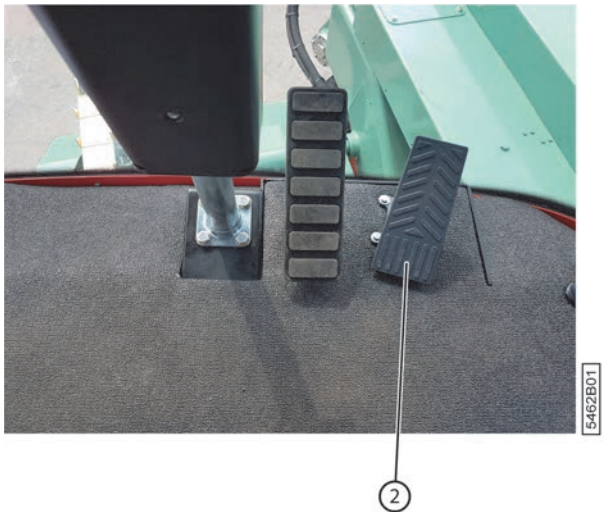


Fig. 69: The accelerator pedal

8.1.6 The brake pedal

The brake pedal (1) is the pedal nearest to the steering column, and is operated with the right foot.

Each rear wheel is equipped with a wheel motor. Via the joystick, you can use the wheel motor to brake. If you cannot brake hard enough using the joystick, you can use the brake pedal.

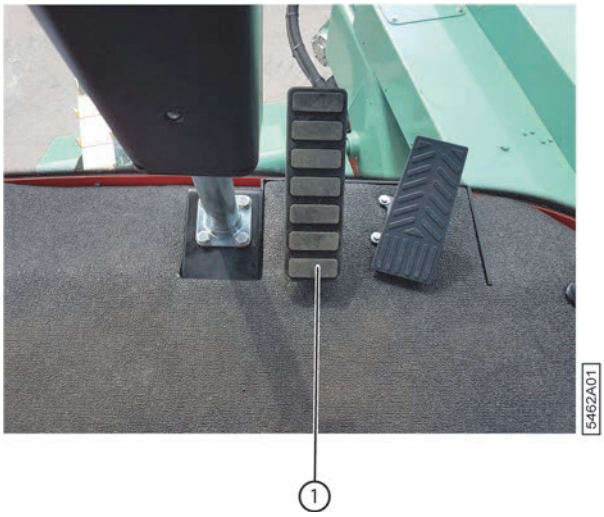


Fig. 70: The brake pedal

8.1.7 The control screen

The control screen is a 7-inch touchscreen.

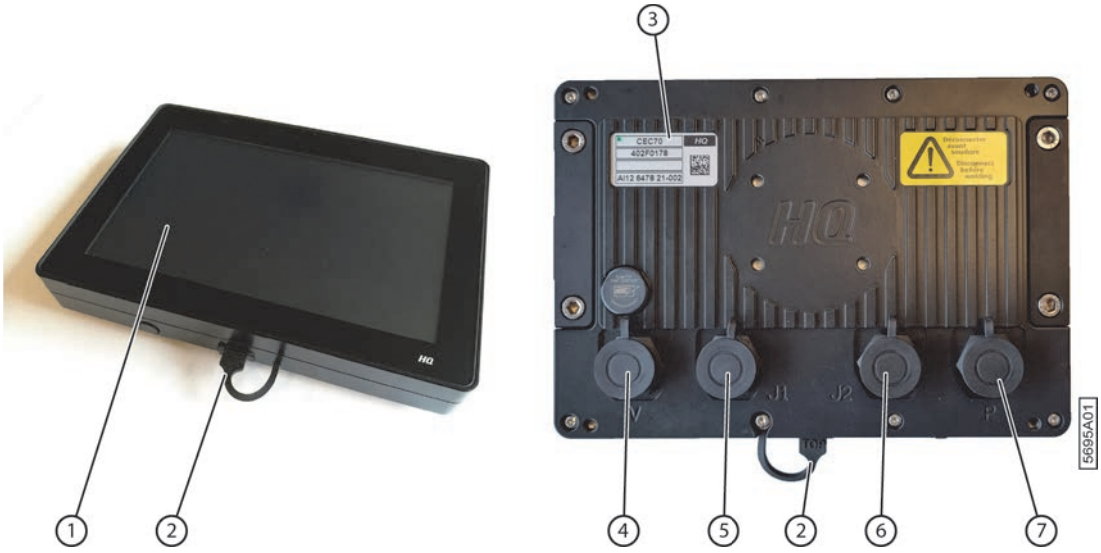


Fig. 71: The control screen

Nr.	Explanation
1	7-inch touchscreen
2	USB port, protected against dirt with rubber plug
3	Identification plate with serial number
4	Connection for camera (is not used)
5	Connection CAN-bus 1
6	Connection CAN-bus 2
7	Connection power connector

8.2 Control instructions

8.2.1 Starting the engine

1. Place the battery key to ON. Turn the battery key clockwise.
2. Sit in the driver's seat and adjust the driver's seat according to your needs.
3. Close the cabin door.
4. Put on your seat belt.
5. Place the joystick in the neutral position,

   You can only start the engine of the machine when the joystick is in the neutral position.
6. Place the parking brake to AUTO (automatic)
7. Turn the ignition key to position 2, and release the key when the engine starts. When the ignition key is in position 1, the ignition is switched ON.

   Do not start the engine for longer than 8 seconds. This prevents the battery from becoming fully discharged, or the starter motor and engine cabling from becoming too hot. Wait 15 to 20 seconds between the 1st and 2nd starting attempt so that the starter motor and the engine cabling can cool down. If the engine does not start, check the voltage and the condition of the battery. If the battery is no longer serviceable, then request a specialist technician to replace it.

8.2.2 Stopping the engine

Turn the ignition switch key counter-clockwise to the 0 position.

8.2.3 Starting the machine

WARNING

- The machine may only be operated by persons who have the requisite experience.
- The machine may not be operated by persons who are intoxicated by alcohol or under the influence of other substances.
- The starter motor must ALWAYS be operated from the driver's seat and may NEVER be activated by short-circuiting the starter motor.
- The machine may only be operated when the cabin door is closed.

1. Check that persons or animals are not in the vicinity of the machine, and check that the machine does not exhibit any abnormalities (oil leak, damaged pipe, open protective panel, etc.).
2. Insert the battery key. Turn the battery key clockwise (ON position).
3. Enter the cabin. See 8.2.5 Entering the cabin on page 101.
4. Check that loose objects (tools, parts, etc.) are not present in the cabin.
5. Sit in the driver's seat and adjust the driver's seat according to your needs.
6. Put on your seat belt.
7. Place the parking brake in automatic.
8. Place the joystick in the neutral position.

   You can only start the machine when the joystick is in the neutral position. The parking brake is automatically activated when the joystick is in neutral and the machine is stationary.

9. Briefly sound the horn, so that persons around the machine are informed that the engine will be started. Give them enough time to leave the danger zone.
10. Turn the ignition key to position 2, and release the key when the engine starts. When the ignition key is set to position 1, the ignition is switched ON, but the engine is not yet started.

NOTE
Do not start for longer than 8 seconds. This prevents the battery from becoming fully discharged, or the starter motor and engine cabling from becoming too hot. Wait 15 to 20 seconds between the 1st and 2nd starting attempt so that the starter motor and the engine cabling can cool down. If the engine does not start, check the voltage and the condition of the battery. If the battery is no longer serviceable, then request a specialist technician to replace it.

NOTE
Never press your foot hard down on the accelerator pedal during a cold start! Give the hydraulic oil time to warm up. During a cold start, the oil is still thick, and this can block the filter.

8.2.4 Stopping the machine

1. Stop the engine.
2. Wait until at least 3 minutes after the engine has stopped.

   This is necessary in order to store all engine data and to completely end the AdBlue cycle.

CAUTION
If you do not wait long enough, AdBlue remains in the circuit and in the winter the AdBlue can freeze in the circuit and cause damage to the circuit.

3. Place the battery key in the OFF position.

See also
- 4.6.4 Switching OFF the electrical power on page 76

8.2.5 Entering the cabin

Only enter the cabin if the machine is stationary.

1. Unfold the ladder. Only if you do not have to drive on public roads.
2. Carefully enter the cabin with your face towards the machine. Only use the 2 handles and the ladder. Do not use any other items as a handle.

8.2.6 Exiting the cabin

Only exit the cabin when the machine is stationary.

1. Place the joystick in the neutral position.
2. Switch off the engine and remove the key from the ignition.
3. Carefully exit the cabin with your face towards the machine. Only use the handles and the ladder. Do not use any other items in the cabin as a handle.
4. Close the cabin door.
5. Alight from the ladder.

   Never jump out of the cabin, unless it is an emergency.

8.2.7 Setting the language of the control screen

1. Go to the menu via  .
2. Select  .
3. Select  .
4. Select the language that you want to use on the screen.
5. Press **OK**.

8.2.8 Setting the brightness of the control screen

The control screen has a brightness that can be used during the daytime and a brightness that can be used at night.

1. Go to the menu via  .
2. Select  .
3. Perform one of the following actions for **Brightness Day** and **Brightness Night**:
   - Tap  or 
   - Move the slider to the left or to the right.

8.2.9 Selecting the day mode or night mode of the control screen

1. Go to the menu via  .
2. Select  .
3. Tap  or  .
   The screen uses the values set for brightness.

8.2.10 Setting the date on the control screen

1. Go to the menu via  .
2. Select  .
3. Select 

.
4. Enter the date.
   Type `290419` to enter 29 April 2019.
5. Tap **OK**.

See also

- 8.2.17 Overview of the common functions on page 106

8.2.11 Setting the time on the control screen

1. Go to the menu via  .
2. Select  .
3. Select  .
4. Enter the date.

   Type `0936` to enter the time of 09:36.
5. Tap **OK**.

8.2.12 Switching the lights of the machine ON or OFF

1. If the buttons for the lights are not displayed at the bottom of the screen, go to the menu via  .
2. Perform one or more of the following actions:

Type of light	Action	Note
Sidelights	Tap  .	The sidelights can only be switched OFF when the dipped beam headlights are switched OFF.
Dipped beam headlights	Tap  .	The dipped beam headlights can only be switched ON when the sidelights are switched ON.
Main beam headlights	Tap  .	The main beam headlights can only be switched ON when the dipped beam headlights are switched ON.
Work lights	Tap  .	There are 2 work lights: Lighting at the throughput of the machine, to provide lighting for the transition from the conveyor belts to the pressing chamber. Lighting at the rear of the machine to see whether the bale has optimally exited the pressing cage. In Road mode, these work lights are automatically switched OFF.

See also

- 2.2.7 The headlights on page 31

8.2.13 Switching on or switching off the work lights on the machine

There are 2 work lights on the machine:

- Lighting at the throughput of the machine to provide lighting for the transition from the conveyor belts to the pressing chamber.
- Lighting at the rear of the machine to see whether the bale has optimally exited the pressing chamber.

In Road mode, these work lights are automatically switched OFF.

1. If the buttons for the lights are not displayed at the bottom of the screen, go to the menu via  .
2. Press  .

8.2.14 Switching ON or switching OFF the work lights on the cabin

The following work lights are mounted on the cabin of the machine:

- 4 work lights at the front integrated in the roof of the cabin
- 1 work light at the rear mounted on the roof of the cabin

Fig. 72: Controls for work lights

Perform one of the following actions:

- Press (2) to switch ON the outermost 2 work lights (2a and 2b) at the front of the cabin.
- Press (3) to switch ON the innermost 2 work lights (3a and 3b) at the front of the cabin.

8.2.15 Retrieving the menu

When starting the machine, the menu is displayed after several seconds.

You can also retrieve the menu and modify data while the machine is in the Field, Road, Manual or Loading mode.

Fig. 73: The menu

Press  to go to the menu.

Nr.	Part
1	To select the mode Road, Field, Manual and Loading,
2	To select the menus To view faults, set screen and language, set machine, reset counters, activate or disable sensors, etc.
3	To control the lights. Work lights, sidelights, dipped headlights and main beam headlights.

8.2.16 Overview of the menus

From most screens, you can return to the menu by tapping  .

Menu	Explanation
	**FAULT LOGBOOK** Here, you receive an overview of all faults with the date and time when they occurred. You can also retrieve faults per group. For example: all faults for the sensors. The faults can also be reset.
	**SCREEN SETTINGS** For adjusting the brightness of the screen, time, and the language.
	**MACHINE SETTINGS** For adjusting the binding system and to activate or stop the regeneration, or to force the EAT system.
	**MACHINE CONFIGURATION** You can fine-tune the machine to the use by modifying certain parameters. For example: you can decrease or increase the speed of the pressing chamber during the ejection of the bale.
	**Calibration position binder** For calibrating the binding system by recording the fully open position and the fully closed position.
	Counters record the harvested surface area of the field, the number of kilometres travelled, the total number of hours, the number of bales and the engine hours. For all data, there is 1 counter that cannot be reset, and also for all data, except for the engine hours, there are 2 counters that can be reset. You can use one counter as the day counter and another one as a year counter.
	**MAINTENANCE** Is currently non-active
	**CODIFICATION** Overview of the controllers and software used.
	**SENSORS ACTUATORS** Information about the signals from the power supply for the controllers, engine, DPF, analogue inputs, PWM outputs, digital inputs and outputs, joystick buttons and signalisation outputs.
	Information about the sensors that are activated or deactivated.

8.2.17 Overview of the common functions

In all 4 modes (Road mode, Field mode, Loading mode and Manual mode), the same icons are displayed at the top and bottom of the screen.

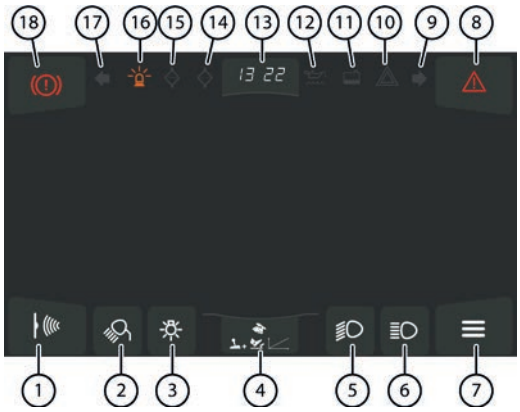


Fig. 74: Overview of common functions

Nr.	Function	Explanation
1		Provides access to the menu **SENSORS ACTUATORS**.
2		For switching the work lights ON or OFF. This function is not available in Road mode and in Loading mode.
3		For switching the sidelights ON or OFF. White = non-active Green = active
4		Driving mode In the Field mode and in the Road mode, you can select the desired driving mode.
5		For switching the dipped headlights ON or OFF. White = non-active Green = active
6		For switching the main beam headlights ON or OFF. White = non-active Green = active
7		To return to the menu.
8		Indicates whether there is a fault message (red) or no fault message (white).
9		Light for the right-hand indicator
10		Is lit when the hazard lights (4 indicators) are activated.
11		Is lit when the level of coolant is too low.
12		Is lit when the level of oil is too low.
13	13 22	Indicates the current time.
14		Is lit when the oil filter is clogged.
15		Is lit when the air filter is clogged.
16		Is lit when the flashing light is activated. In Road mode, the flashing light is automatically activated.
17		Light for the left-hand indicator.
18		Light is red when the parking brake is active.

See also

- 8.2.10 Setting the date on the control screen on page 102

8.2.18 Placing the machine in a different mode

You can only place the machine in a different mode when the joystick is in neutral and the machine is stationary. You can go the menu from any mode, without leaving the mode.

1. If the buttons for the various modes are not displayed at the top of the screen, go to the menu via .
2. Press one of the following buttons:

Mode	Name	Explanation
	Field	To collect the flax in the field, roll it up and create a bale. This mode is also used for manoeuvring in the field.
	Road	To drive the machine on public roads.
	Manual	To perform certain functions manually.
	Loading	To load or unload the machine. For example, when driving a machine onto or off a lorry.

NOTE
If you do not select a mode, then the machine automatically reverts to the Stationary mode.

8.2.19 Placing the machine in the Field mode.

This mode is used in the field to collect the flax, roll it up and create a bale. This mode is also used for manoeuvring in the field.

You can only place the machine in a different mode when the joystick is in neutral and the machine is stationary.

1. Go to the menu via .
2. Press

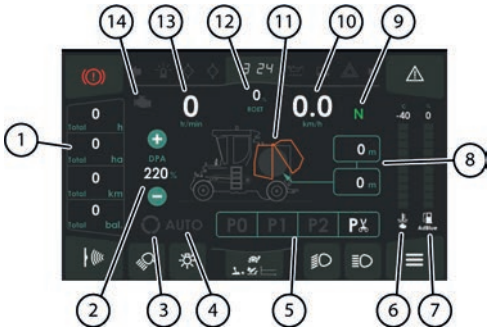
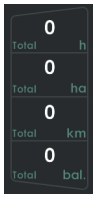


Fig. 75: Field mode window

Nr.	Pictogram	Explanation
1		Overview of the counters: • Hour counter • Hectares counter • Kilometres counter • Bale counter There is 1 non-resettable counter (Total), and 2 counters that can be reset (Day counter and Year counter). Tap the counter to display another counter.
2		This enables you to enter the layer thickness. At 100%, the layer is rolled-up into bales that have the normal layer thickness, before being ejected onto the field. The default value is 300%. This enables you to roll-up the flax using a layer that is 3 times thicker than the layers in the field.
3		Indicates whether the work cycle is active (white) or non-active (grey). If the work cycle is active, the functions and the actions for harvesting are controlled according to the movement of the machine. If the work cycle is non-active, then you can drive the machine without the machine performing functions.
4		Indicates whether the work cycle is active (white) or non-active (grey). This function only works when the work cycle is active. After reaching the desired diameter in automatic mode: • there is a light signal and an audible signal in the cabin, • the binding of the bale is automatically started, • when the pressing chamber opens, the image on the monitor is transmitted to the camera at the rear (optional camera). • the bale is automatically ejected from the pressing chamber. • an audible signal is sounded in the cabin to indicate that the balancing arm is in the lowest position. • an audible signal is sounded in the cabin to indicate that the pressing chamber is closed. • after the pressing chamber closes, the image on the monitor is again transmitted to the camera at the front (optional camera). • After you return the joystick to the neutral position, you can resume work with the machine. • If the automatic mode is non-active, you must manually start the binding yourself.
5		The binding position. The active binding position is displayed in white, and a progress bar visually displays the progress of the machine in this binding position.

Nr.	Pictogram	Explanation
6		The temperature of the coolant for the DEUTZ engine in °C.
7		Indicates the level of AdBlue as a percentage (Only EU)
8		The length of the rolled-up flax. Field above: the length of the rolled-up flax in the previous bale. Field below: the length of the rolled-up flax in the current bale.
9		Indicates whether the joystick is in the neutral position (green) or is not in the neutral position (grey). As soon as the joystick is in the neutral position and the machine is stationary, the parking brake will be automatically activated.
10		The driving speed in kilometres per hour (km/hour).
11		If the pressing chamber is open, an orange ‘open pressing chamber’ lamp flashes. The position of the balancing arm is denoted by the size of the bale displayed on the screen.
12		Indicates the percentage of soot measured in the soot filter. (Only EU)
13		Indicates the revs./minute of the engine.
14		Is lit if there is an engine fault.

The Field mode window is displayed.

8.2.20 Placing the machine in the Road mode

The Road mode is used to drive on public roads.

You can only place the machine in a different mode when the joystick is in neutral and the machine is stationary.

1. Go to the menu via  .
2. Press 

Fig. 76: Road mode window

Nr.	Pictogram	Explanation
1		The temperature of the coolant for the engine
2		The speed of the engine in revolutions per minute (revs./minute)
3		Indicates whether the joystick is in the neutral position (green) or is not in the neutral position (grey).
4		The total number of kilometres travelled.
5		The feed pressure in bar.
6		The driving speed in kilometres per hour (km/hour).
7		Indicates the level of AdBlue as a percentage (Only EU)
8		Indicates the percentage of soot measured in the soot filter. (Only EU)
9		Is lit if there is an engine fault.

The Road mode window is displayed.

8.2.21 Placing the machine in the Manual mode

The Manual mode is used to load or unload the machine. For example, when driving a machine onto or off a lorry.

You can only place the machine in a different mode when the joystick is in neutral and the machine is stationary.

1. Go to the menu via  .

2. Press 

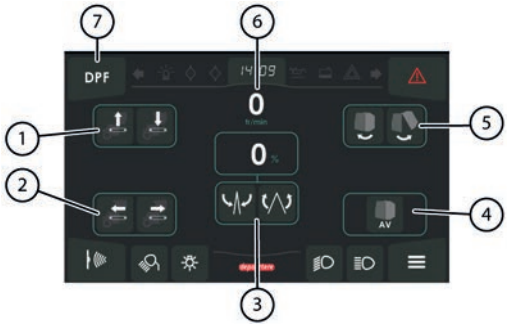


Fig. 77: Manual mode window

Nr.	Pictogram	Explanation
1		To raise or lower the pick-up.
2		To allow the pick-up to rotate forwards or backwards.
3		To open or close the binding needles of the binding system. The opening percentage is shown above.
4		To allow the pressing chamber to rotate forwards.
5		To manually open or close the pressing chamber.
6		Indicates the revs./minute of the engine.
7		To go to the screen to start the regeneration. (Only EU)

The Manual mode window is displayed. In the centre, the revs./minute of the engine are displayed, together with the percentage that the binding needles of the binding system are open. 0% is completely closed and 100% is completely open.

8.2.22 Placing the machine in Loading mode

The Loading mode is used to load the machine onto a lorry.

You can only place the machine in a different mode when the joystick is in neutral and the machine is stationary.

1. Go to the menu via  .
2. Press  .

Fig. 78: Loading mode window

The Loading mode window is displayed.

8.2.23 Placing the machine in Stationary mode

As soon as:

- the joystick is in the neutral position
- the pedal is not operated
- the machine is stationary
- you are no longer in Field mode or Road mode on the screen:

then the machine automatically reverts to the Stationary mode. This happens when another mode is not active.

Go to the menu via  .

If another mode is not active, the machine reverts to the Stationary mode.

8.2.24 Driving the machine (in driving mode with pedal)

The selected driving mode for the machine (Field mode or Road mode) is displayed at the bottom. The driving mode with pedal is the safest mode.

1. Place the machine in Field mode or in Road mode.
2. Perform one of the following actions:
   - To drive forwards, gently press the joystick away from you.
   - To drive backwards, gently pull the joystick towards you.

   The extent to which the joystick is moved, determines the maximum speed that can be attained using the pedal.
3. When using the pedal, gently press your foot down.
   The machine drives in the desired direction. When the pedal is pressed fully down, the position of the joystick determines the maximum revs./minute and speed of the engine.
4. Combine the position of the joystick and the pedal to attain the desired speed and revs./minute.

See also
- 2.2.13 The accelerator pedal on page 35
- 8.2.25 Driving the machine (in driving mode with only the joystick) on page 113
- 8.2.25 Driving the machine (in driving mode with only the joystick) on page 113
- 8.3.2 Driving on public roads on page 136

8.2.25 Driving the machine (in driving mode with only the joystick)

The selected driving mode for the machine (Field mode or Road mode) is displayed at the bottom. The driving mode with pedal is the safest mode.

WARNING
In a driving mode with only joystick, movement of the joystick immediately results in movement of the machine in the same direction!

1. Place the machine in the Field mode or Road mode.
2. Perform one of the following actions:
   - To drive forwards, press the joystick gently away from you.
   - To drive backwards, pull the joystick gently towards you.

   The extent to which the joystick is moved, determines the revs./minute of the engine and the speed of the machine. The machine drives in the desired direction.

See also
- 8.2.24 Driving the machine (in driving mode with pedal) on page 112
- 8.2.24 Driving the machine (in driving mode with pedal) on page 112

8.2.26 Changing the driving mode of the machine

The machine has a total of 6 driving modes. 2 driving modes in the Road mode, and 4 driving modes in the Field mode. Some driving modes only use the joystick, and some driving modes use the joystick in combination with the pedal for driving.

WARNING

The safest mode is the driving mode where driving takes place via the joystick in combination with the pedal!

In a driving mode with only the joystick, the machine will be driven if you accidentally move the joystick!

In Road mode and in Field mode, the driving mode of the machine is displayed at the bottom.

Fig. 79: Changing driving mode

1. Go to the Field mode or Road mode on the control screen.

2. Press the driving mode icon at the bottom.
3. Depending on whether you have selected Field mode or Road mode, select one of the following driving modes:

Table 1: Road mode

Driving mode	Explanation
	To drive, you only use the joystick. The joystick determines the direction. The position of the joystick proportionally determines the revs./minute and the speed of the machine.
	To drive, you use the joystick in combination with the pedal. The position of the joystick determines the direction and the maximum speed. With the pedal, you proportionally determine the revs./minute and the speed of the machine.

Table 2: Field mode

Driving mode	
	To drive, you only use the joystick. As soon as you move the joystick from the neutral position, the revs./minute immediately increases to the maximum revs./minute. The maximum revs./minute is defined by the software and cannot be changed. The joystick determines the direction. The position of the joystick determines the speed of the machine.
	To drive, you only use the joystick. The joystick determines the direction. The position of the joystick proportionally determines the revs./minute and the speed of the machine.
	To drive, you use the joystick in combination with the pedal. As soon as you move the joystick from the neutral position, the revs./minute immediately increases to the maximum revs./minute. The maximum revs./minute is defined by the software and cannot be changed. The position of the joystick determines the direction and the maximum speed. With the pedal, you determine the speed of the machine.
	To drive, you use the joystick in combination with the pedal. The position of the joystick determines the direction and the maximum speed. With the pedal, you proportionally determine the revs./minute and the speed of the machine.

In Road mode and in Field mode, the selected driving mode is constantly displayed at the bottom of the screen.

8.2.27 Setting the maximum speed in the Veld mode

You can set the maximum forwards and backwards speed in the Field mode. This ensures that the machine maintains the set speed, regardless of whether the driver moves the joystick fully forwards or backwards. The speed also remains constant when ascending and descending a slope.

1. Select the Field mode  .
2. Touch the driving mode icon at the bottom.

3. Touch  or  to set the respective maximum speed for driving forwards and backwards.

8.2.28 Setting the maximum speed in the Baan mode

You can set the maximum forwards and backwards speed in the Road mode. This ensures that the machine maintains the set speed, regardless of whether the driver moves the joystick fully forwards or backwards. The speed also remains constant when ascending and descending a slope.

1. Select the Road mode  .
2. Press the driving mode icon at the bottom.

3. Press  or  to set the respective maximum speed for driving forwards and backwards.

8.2.29 Setting the diameter of the bale

The diameter of the bale and the diameter of the core and the position of the respective sensors are correctly set by the manufacturer. The most used value for the diameter of the bale is 125 cm. If you require a different diameter for the bale, then you can move the sensor and change the value in the software.

1. Move the sensor.
2. Create a bale.
3. Measure the diameter of the bale and perform one of the following actions:
   - If the measured diameter is the same as the desired diameter, go to the next step.
   - If the measured diameter is different from the desired diameter, then repeat from step 1.
4. Place the machine in Field mode.
5. Tap  .
6. Enter the desired/measured diameter in the **Diameter bale** field.

8.2.30 Setting desired length of the bale

Ensure beforehand that the desired diameter of the bale is set. See 8.2.29 Setting the diameter of the bale on page 115.

You can set the desired length of the bale on the control screen if a correction method is also set.

1. Place the machine in Field mode.
2. Tap  or  beside  in order to enter the desired length of the bale.
   If you cannot enter anything, you must first set a correction method.

8.2.31 Setting the correction method for the automatic bale length

You must activate at least one of the correction methods to enable the bale length to be automatically controlled by the machine.

1. Place the machine in Field mode.

2. Tap  .
The screen for setting the desired length of the bale is displayed.
3. Activate or deactivate the desired correction methods by tapping them. Both correction methods may be activated together.

Correction method	Explanation
DPA - final correction	After creating the core, all data is checked and if necessary, the layer thickness (DPA value) is adjusted in order to obtain the desired bale length for this bale in as far as this is possible.
DPA - intermediate correction	After creating the bale, all data is checked and if necessary, the layer thickness (DPA value) is adjusted in order to obtain the desired bale length for creating the next bale, in as far as this is possible.

NOTE

If you manually change the layer thickness (DPA value), the correction will not be used until the next bale!

If you want to use the correction methods, you may not adjust the layer thickness (DPA value) manually!

TIP

Ensure that the number of metres of flax that is still added after reaching the desired diameter always remains the same. Do this by always stopping the machine in the same way and by always using the same parameter settings. This enables the desired bale length to be optimally attained.

8.2.32 Raising or lowering the pick-up (via the control screen)

1. Go to the menu via  .
2. Press 

The Manual mode window is displayed.
3. Perform one of the following actions:
   - Press  to raise the pick-up.
   - Press  to lower the pick-up.

See also

- 2.2.27 The pick-up on page 42

8.2.33 Raising the pick-up (via the joystick)

The pick-up can be raised in any mode via the joystick.

Press button 3 or 4.
The pick-up is raised.

NOTE
In the Field mode, when button 3 is pressed, the pick-up is raised without stopping the cycle, and when button 4 is pressed, the pick-up is raised and the cycle is stopped.

See also
- 2.2.27 The pick-up on page 42

8.2.34 Removing a blockage by machine (in the Field mode)

WARNING
Check that nobody is in the vicinity of the machine.

Before removing the blockage, you must look for the cause and eliminate the cause.

Removing the blockage by machine (unblocking), can only be performed in the Field mode and with the work cycle  active.

1. Press and hold button 3 or 5 during the entire rest of the procedure.
   Reverse direction mode with pick-up activated is displayed on the screen.
2. Place the joystick:
   - backwards: the pick-up drum moves backwards, and the machine moves backwards. The conveyor belts and the pressing chamber do not move.
   - forwards: the pick-up drum moves forwards and the conveyor belts move forwards. The pressing chamber moves forwards. The machine moves forwards.
3. Release the button if you wish to interrupt the procedure.
4. Repeat from step 1 if the blockage is still not removed, or try the remove the blockage manually in accordance with the 8.2.35 Removing a blockage manually on page 117 procedure.

See also
- 8.2.35 Removing a blockage manually on page 117

8.2.35 Removing a blockage manually

DANGER
It is prohibited to look for and eliminate the cause of the blockage if the machine is still switched ON.

WARNING
Wear safety gloves when removing the blockage.

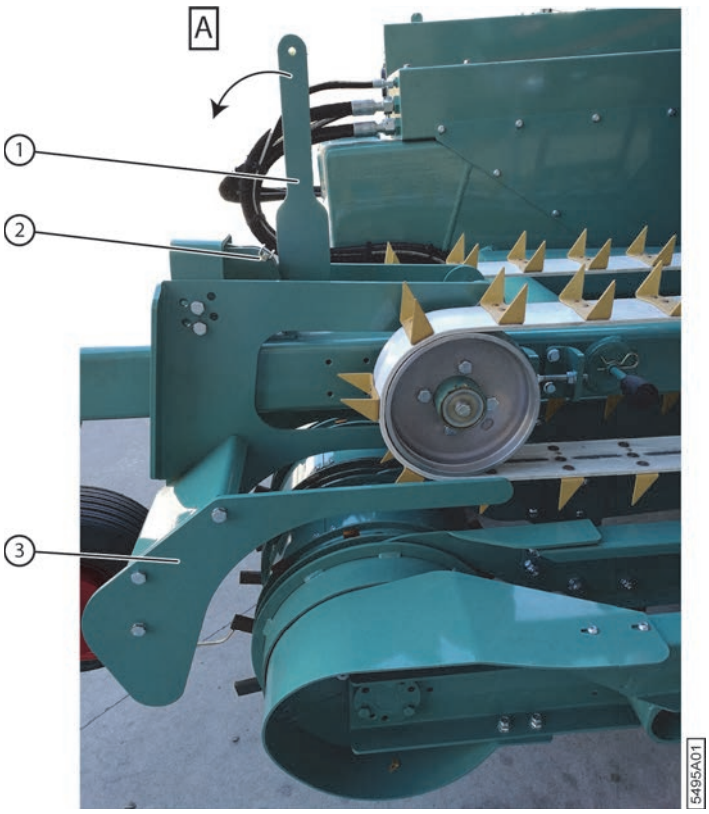


Fig. 80: Open the foldable guide

1. Switch OFF the machine safely.
2. Remove the pipe locking pin (2).
3. Pull the handle (1) towards you (A).
   If necessary, use a pipe to give the handle more leverage when opening the guide (3).
4. Remove the blockage.
5. Push the handle back to its original position.
6. Install the pipe locking pin.

See also

- 8.2.34 Removing a blockage by machine (in the Field mode) on page 117

8.2.36 Looking for and eliminating cause of blockage

WARNING
It is prohibited to look for and eliminate the cause of the blockage if the machine is still switched ON.

Always look for the cause of the blockage and eliminate the cause.

1. Switch OFF the machine safely.
2. Check the cause of the blockage and eliminate the cause:

Cause	Solution
The thickness of the flax layer has not been correctly set.	Set the correct thickness of the flax layer via the control screen.
The flax layer is locally too thick.	Spread out the flax in a uniform manner.
A stone is present between the flax.	Remove the stone.

Cause	Solution
A guide has been moved.	Move the guide back to its original position and check the alignment.
A guide is bent or damaged.	Straighten the guide or replace the guide.
Dirt has accumulated.	Remove all of the dirt.
An attachment on a conveyor belt is damaged.	Repair or replace the attachment. See 10.3.23 Replacing an attachment on the conveyor belt on page 212.
A tooth is damaged.	Replace the tooth. See 10.3.11 Replacing the tooth of the pick-up drum (disk type) on page 203 or 10.3.12 Replacing the tooth of the pick-up drum (type iron u-profile) on page 204.
The attachment on the pick-up drum is too open.	Adjust the attachment (1) so that it is a tight-fit on the pick-up drum (2).

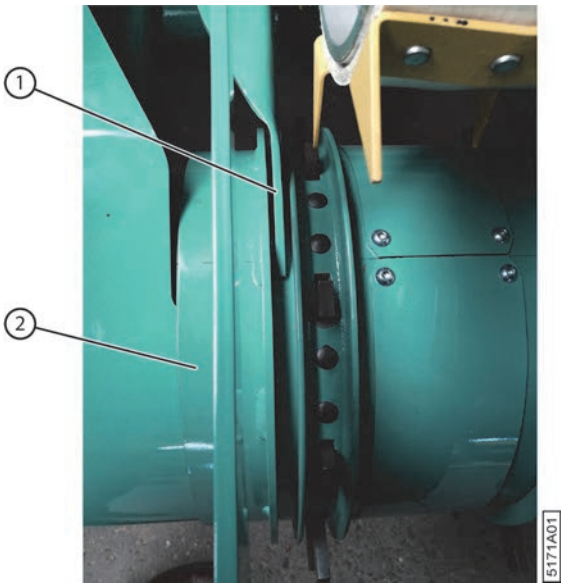


Fig. 81: Attachment pick-up drum

8.2.37 Moving the conveyor belts forwards and backwards

You can move the conveyor belts forwards or backwards. The pressing chamber always moves forwards, even when the conveyor belts move backwards.

For example: In the event of a blockage, you can move the conveyor belts backwards slightly in order to remove the blockage. The pressing chamber always moves forwards.

1. If the buttons for the various modes are not displayed at the top of the screen, go to the menu via .
2. Press STOP.
   The Manual mode window is displayed.
3. Perform one of the following actions:
   - Press and hold to move the conveyor belts backwards. The pressing chamber moves forwards.
   - Press and hold to move the conveyor belts forwards. The pressing chamber moves forwards.

4. Release the button to stop the movement.

8.2.38 Opening or closing the needles of the binding rope system

1. If the buttons for the various modes are not displayed at the top of the screen, go to the menu via  .
2. Press 
   The Manual mode window is displayed.
3. Perform one of the following actions:
   - Press and hold  to open the needles.
   - Press and hold  to close the needles.

   The current status of the needles is displayed in the  box.
4. Release the button to stop the opening or closing.

8.2.39 Allowing the pressing chamber belts to rotate forwards

Only the pressing chamber belts rotate forwards without the conveyor belts rotating.

1. If the buttons for the various modes are not displayed at the top of the screen, go to the menu via  .
2. Press  .
   The window for Manual mode is displayed.
3. Press  to allow the pressing chamber belt to rotate forwards.

See also

- 2.2.32 The pressing chamber on page 49

8.2.40 Opening / closing the pressing chamber

1. If the buttons for the various modes are not displayed at the top of the screen, go to the menu via  .
2. Press 
   The window for Manual mode is displayed.
3. Perform one of the following actions:
   - Press and hold  to open the pressing chamber.
   - Press and hold  to close the pressing chamber.

8.2.41 Setting the thickness of the flax layer

The thickness of the flax layer in the bale is determined by the speed of the conveyor belts in relation to the driving speed of the machine. The value is expressed as a percentage. At 100%, the conveyor belts rotate at the same speed as the machine travels. The value is reduced to obtain a thicker flax layer in the bale, or increased to obtain a thinner flax layer in the bale.

In the event of a thinner flax layer on the field, you must increase the value in order to obtain the same thickness of the flax layer in the bale.

1. Place the machine in Field mode.
2. Press  or  beside  to modify the thickness of the flax layer.
   By default, a value of 300% is set. After a few seconds, the modifications are automatically saved.

See also

- 8.2.68 Setting a parameter on page 131

8.2.42 Activating the automatic mode of the machine

The automatic mode ensures that the flax is bound and ejected as a bale.

NOTE

- If 5 metres of flax still has to be harvested, and you have received the signal that the bale will be bound, you can temporarily deactivate the automatic mode to collect the remaining flax. Then you can reset the machine to automatic mode or you use the buttons on the joystick to bind the bale, to open or close the pressing chamber.
- You can also temporarily deactivate the automatic mode in order to eject the bale at another location.

1. Select the Field mode  .
2. Press button 8 on the joystick.
   The  pictogram is active.

8.2.43 Starting rolling-up mode of the machine

The rolling-up mode ensures that the flax is collected, transported, and rolled-up into a bale. To bind the bale and eject it, you must either activate the automatic mode or give a manual command to bind or eject.

1. Select the Field mode  .
2. Perform one of the following actions:
   - Press button 6 on the joystick to lower the pick-up and start the rolling-up mode. The pick-up follows the profile of the ground.
   - Press button 9 on the joystick to start the rolling-up mode (without lowering the pick-up).

   The  pictogram is active.

8.2.44 Reading the counters

In Field mode, you can read the number of hours, hectares, kilometres and bales. Per type, you can display the total number, or you can display the number that is logged by the day counter or the year counter.

1. Select the Field mode .
   The counters are displayed on the left-hand side of the screen: hour counter, hectares counter, kilometres counter, bale counter.
2. Tap a counter to display another counter.
   The counters that can be displayed are: the total counter, day counter or year counter.

NOTE

The number of bales is counted on the basis of the number of times that the pressing chamber is opened.

Please be aware of the fact that a bale is counted every time you open the pressing chamber for maintenance.

8.2.45 Resetting a counter

The day counter and the year counter can be reset. The total counter CANNOT be reset.

1. Go to the menu via .
2. Select .
3. Press the value of the counter that you wish to reset.
4. Confirm in the dialog box.

8.2.46 Setting the positions of the needles of the binding rope system

You can set the various positions for the rope around the bale. Initially, start the rope in the centre of the bale (S). To bind the bale, the rope is transported to 3 intermediate positions (0, 1 and 2), and finally to the cutting position (F). In addition to the position, you also set the number of revolutions that must be made. Usually, 1 to 3 revolutions per position.

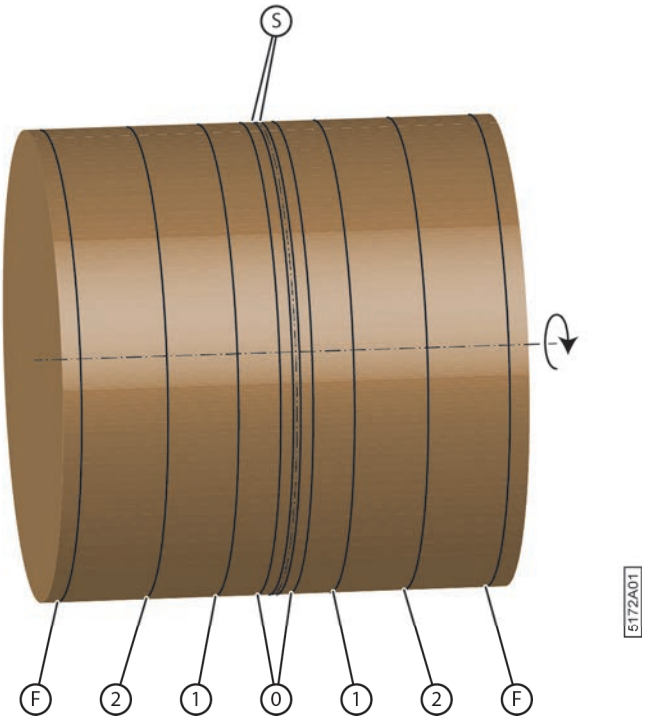


Fig. 82: Positions of the rope during binding

1. Go to the menu via .
2. Select .
3. Select **BINDER SETTINGS**.
4. Press **P0** to select position 0.
5. Press or to set the percentage.
6. Press or to set the number of revolutions.
   Between 0 and 15 revolutions. Can be set per half revolution.
7. Set position 1 (P1), position 2 (P2) and the cutting position ( ) in the same way.

CAUTION
The percentages entered per position must differ by at least 10% in order to guarantee optimal binding.

Table 3: Default values

Position	Percentage (default value)	Revolutions (default value)
Position 0	5%	3
Position 1	25%	4
Position 2	55%	2.5
Cutting position	90%	1

8.2.47 Viewing the position of the needles

In the Field mode, you can view the position of the needles visually and as a percentage.

1. Place the machine in Field mode.
2. View the position of the needles.

   Left: Displays the position of the needle: Position 0 (P0), position 1 (P1), position 2 (P2) and the cutting position () in. The progress of the needles in this position is displayed via a coloured bar.

   Right: Displays the position of the needles as a percentage.

8.2.48 Calibrating the positions of the needles of the binding rope system

Problems with the binding rope system can often be solved by performing the calibration again. If the calibration does not solve the problem, contact your distributor.

1. Go to the menu via  .
2. Select  .
3. Press and hold  to fully close the needles.
4. Press **OK** to calibrate the closed position of the needles.
5. Press and hold  to fully open the needles.
6. Press **OK** to calibrate the open position of the needles.
   The **Calibration successfully performed!** message is displayed.

8.2.49 Testing the positions of the needles of the binding rope system

If the machine has an optional camera, then the testing can be performed by the driver from the driver's seat.

Perform this test at full speed.

1. Go to the menu via  .
2. Select  .
3. Select **BINDER SETTINGS**.
4. Press **P0** to select position 0.
5. Press **GO**
   The needles go to the selected position.
6. Check that this position corresponds with the set value. If the position deviates, then the positions of the needles must be recalibrated.
7. Repeat from step 3, to test the other positions in the same way.

8.2.50 Rolling-up the flax without ropes between the layers

If the quality of the flax is poor, you can opt to roll-up the flax without ropes between the layers. The rope is only used for binding at the end.

To select this option, you require a password.

1. On the start screen, tap the current position of the needles.
   The screen is displayed with the settings for the needles.
2. Tap  .

   NOTE
   In order to prevent mistakes, a password is always requested for rolling-up without ropes.
3. Enter the password.
   The option is active. The binding system opens fully and ensures that rope is not taken between the layers of flax.

8.2.51 Rolling-up the flax with ropes between the layers (default)

By default, the machine is set up to roll-up the flax with 2 ropes between the layers of flax.

If the machine is set up to roll-up the flax without ropes, you do not require a password to easily revert to rolling-up flax with ropes.

1. Tap the current position of the needles on the start screen.
   The screen is displayed with the settings for the needles.
2. Tap  .

   NOTE
   You can make a selection without requiring a password.

   The needles close and the rope is once again taken with the flax.

8.2.52 Entering the secret code

Certain data is locked. The data is only displayed after you have entered a code. After entering the correct code, the data remains unlocked as long as the machine is active. After switching OFF the machine via the ignition key, you must re-enter the code so that you can see the locked data. The code is a 4-digit numerical code.

By default, the numerical code is: 1508

1. Press 
2. Enter the secret code.
   Stars * are displayed. To delete the numbers already entered, select **C**.
3. Press **OK** to confirm.

   When entering the 4th number and if the entered numerical code is correct, the locked window is displayed.

See also

- 8.2.66 Deleting the history of the fault messages on page 129

8.2.53 Reading the engine hours

1. Go to the menu via  .
2. Select  .
3. Read the number of engine hours on **ENGINE**.

See also

- 2.2.33 The engine compartment on page 49

8.2.54 Deleting a fault message

A pop-up window is displayed for a fault message.

1. Carefully read the fault message and solve the problem.
2. Press **Close** to delete the fault message.

   The fault message is logged and can later be retrieved. If several fault messages exist, each fault message is displayed in turn after you press **NEXT**.

See also

- 8.2.65 Viewing the history of the fault messages on page 129

8.2.55 Checking whether the parking brake is activated

In the Field mode, Road mode and Loading mode, the status of the parking brake is displayed on the control screen.

Pictogram	Status
	Parking brake released.
	Parking brake activated.

8.2.56 Checking the operation of the joystick

Check the optimal movement and operation of the joystick and all buttons on the joystick.

1. Go to the menu via  .
2. Select  .
3. Select the **ANALOG INPUTS** page.
4. Place the joystick in the neutral position and check that the value beside **Joystick** in the **Scaled** column is 0%.
5. Slowly move the joystick forwards.
6. Check that the value beside **Joystick** in the **Scaled** column gradually increases to 100% when the joystick is moved fully forwards or backwards.
7. Select the **JOYSTICK BUTTONS** page.
8. Press buttons 1 to 9 in turn, and check that the value in the **Condition** column changes to 1 each time a button is pressed.

8.2.57 Viewing the analogue inputs

You can view the input and output values in order to solve problems.

1. Go to the menu via  .
2. Select  .
3. Select the **ANALOG INPUTS** page.
4. View the values in the **Gross** and **Scaled** columns.

8.2.58 Viewing the software version

When contacting your distributor, it is recommended to state the software version of the various programs.

1. Go to the menu via  .
2. Select  .
   The overview of the various modules, the codes for the equipment and for the software are displayed.

8.2.59 Viewing the operation of the hydraulic pumps

In the event of problems during the driving or problems with the conveyor belts or the pressing chamber, you can check certain data on the control screen.

1. Select a suitable mode.
   For example, select Field mode or Road mode to view the operation of the hydraulic pump for driving. For example, select Manual mode to view the speed of the pressing chamber.
2. Perform one of the following actions:
   - Go to the menu via  and select  .
   - Select  at the bottom left.
3. Select **PWM OUTPUTS** page.
4. Evaluate the data and contact your distributor if you detect deviations.
   - If a value is displayed at **Setting v.** , then a comparable value must be displayed at **Current v.**. In the event of a deviation between the values, there is a bad connection. In the event of a value equal to zero, there is a open-circuit in the cabling to the pump.
   - The values displayed at **Driving Speed** and at **Cage Speed**, must correspond with the actual speed. In the event of deviations, there are problems with the sensors that measure the driving speed and the pressing chamber speed.
   - The hydraulic pressure that is displayed at **Supply pressure pump Driving** must be approximately 20 bar. In the event of a low or too low pressure, alarms are displayed on the control screen.
   - The values beside **Rope-break 1** and **Rope-break 2** display the speed at which the rope wheels rotate. If the value is 0 Hz, then the machine is not driving at that moment or there is a rope-break.

8.2.60 Viewing the engine data

In the event of problems with the engine, you can view data such as revs./minute, oil pressure, water temperature, oil temperature, AdBlue level, AdBlue temperature, coolant level, pressure in the air filter, etc.

1. Go to the menu via  .
2. Select  .
3. Select **ENGINE INFO** page.
   The overview of the engine data is displayed.
4. Select the next page to view the rest of the information.

See also

- 2.2.33 The engine compartment on page 49

8.2.61 Viewing the digital inputs and outputs

You can view the operation of sensors, pushbuttons and level meters.

1. Go to the menu via  .
2. Select  .
3. Select **DIGITAL INPUTS** page.
4. Check that the value in the **Condition** column corresponds with the actual status of the sensor, pushbutton or level measurement.
5. Select **DIGITAL OUTPUTS** page.
6. Check that the value in the **Condition** column corresponds with the actual status of the sensor, pushbutton or level measurement.

8.2.62 Checking the operation of the signalisation

You can check that the alarm sounds in the cabin, and check the operation of the flashing light, indicators, sidelights, dipped headlights, main beam headlights, work lights, stop lights, indicator light for a rope-break, indicator light for signalling when correct diameter has been reached, buzzer for reversing.

1. Go to the menu via  .
2. Select  .
3. Select **SIGNALISATION OUTPUT** page.
4. Check that the value in the **Condition** column corresponds with the actual status of the signalisation.

8.2.63 Checking the power supply to the modules

You can check whether all modules receive the correct power supply.

1. Go to the menu via  .

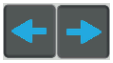
2. Select  .
3. Select **POWER SUPPLY CONTROLLERS** page.
4. Check that the value in the **+BAT** column is greater than 12V. Check that the values for the power supplies for the screen and the modules in the **+APC** column is greater than 12V. Check whether the 5V is attained for the 5V modules.

8.2.64 Viewing the data for the soot filter

1. Go to the menu via  .
2. Select  .
3. Select **DPF INFO** page.
   The overview for the soot filter is displayed.
4. Select the next page to view the rest of the data.

8.2.65 Viewing the history of the fault messages

There are 10 fault message groups. In the first group ALL FAULTS, all faults are displayed. In other groups, the faults are displayed per type. For example: engine faults.

1. Go to the menu via  .
2. Select  .
   The date, the time and the description are displayed for the previous 10 faults. By default, the overview of all faults is displayed.
3. Use the  arrows to display the faults per fault message group:
   - **CAN NETWORK**
   - **POWER SUPPLY**
   - **CRITICAL**
   - **SENSORS**
   - **ENGINE**
   - **SCREEN**
   - **MAINTENANCE**
   - **ALARMS**
   - **DIESEL**

See also

- 8.2.54 Deleting a fault message on page 126

8.2.66 Deleting the history of the fault messages

There are 10 fault message groups. In the first group **ALL FAULTS**, all of the fault messages are displayed. In other groups, the fault messages are displayed per type. For example: engine faults.

You can delete the entire history of the fault messages. For this, you need a secret code.

1. Perform one of the following actions:

- Go to the menu via and select  .
- If a fault message has been displayed in the Field mode or Road mode, you select  .

2. Press **Reset**
3. Enter the secret code.
   All fault messages from the selected fault message group are deleted.

See also

- 8.2.52 Entering the secret code on page 125

8.2.67 Disabling a sensor

In the event of a sensor no longer being operational, you can temporarily disable the sensor until the sensor can be repaired.

For example: the sensor for detecting a rope-break is no longer operational. Disable the sensor. Note: in the event of a rope-break, a message will no longer be displayed!

When starting the machine, you receive a message stating that sensors have been disabled.

1. Go to the menu via  .
2. Select  .
3. Perform one of the following actions:

Label	Explanation	Result
Cage Open	The sensor that detects whether the pressing chamber is open, is disabled.	The automatic cycle of the pressing chamber can still take place, but is now time-based. The pressing chamber is automatically closed after a certain time. Whether or not the pressing chamber door opens fully is not checked.
Cage Closed	The sensor that detects whether the pressing chamber is closed, is disabled.	The automatic cycle for the pressing chamber can still take place. Whether or not the pressing chamber door closes is not checked.
Balancing arm low	The sensor that detects whether the balancing arm is in the lowest position, is disabled.	The automatic cycle for the pressing chamber can still take place. The lowest position of the balancing arm is not checked. The user does not receive an audible signal (beep) if the balancing arm is in the lowest position.
	Is not used.	
Rope-break 1	The sensor that detects the uppermost rope, is disabled.	A rope-break of the uppermost rope is no longer detected. Whether or not the rope is taken during the rolling-up of a new bale is no longer detected. The cutting is no longer detected.

Label	Explanation	Result
Rope-break 2	The sensor that detects the lowermost rope, is disabled.	A rope-break of the lowermost rope is no longer detected. Whether or not the rope is taken during the rolling-up of a new bale is no longer detected. The cutting is no longer detected.
Cage Speed	The speed sensor for the pressing chamber is disabled.	The machine can still be operated. The speed will be calculated by another means.
Driving Speed	The speed sensor for the machine is disabled.	The machine can still be operated. The speed will be calculated by another means. After the joystick is placed in neutral, the parking brake is activated after 6 seconds.

The icon for the name of the sensor is red, the background of the button is black. The sensor is disabled.

See also

- 2.2.35 Overview of the sensors on page 51
- 10.2.52 Testing the rope-break sensors on page 185
- 10.2.53 Testing the pressure chamber sensors on page 185
- 10.2.54 Testing the speed sensors on page 186
- 2.2.35 Overview of the sensors on page 51

8.2.68 Setting a parameter

You can fine-tune the machine to the use by modifying certain parameters.

For example: you can decrease or increase the speed of the pressing chamber during the ejection of the bale.

1. Go to the menu via  .
2. Select  .
3. In the **Groups** group box, use the  arrows to select one of the following parameter groups:
   - **0-SENSORS***
   - **1-HARVEST**
   - **2–CONTROL BINDER***
   - **3-ENGINE PROTECTION***

   * Only available after entering the secret code.
4. In the **Parameters** group, use the  arrows to select one of the following parameters:

   In **SENSORS** parameter group:

Parameters	Possible values.	Explanation	Result
Deactivate open cage sensor	• 0 • 1	The sensor that detects whether the pressing chamber is open, is disabled.	The automatic cycle of the pressing chamber can still take place, but is now time-based. The pressing chamber is automatically closed after a certain time. Whether or not the pressing chamber door opens fully is not checked.
Deactivate closed cage sensor	• 0 • 1	The sensor that detects whether the pressing chamber is closed, is disabled.	The automatic cycle for the pressing chamber can still take place. Whether or not the pressing chamber door closes is not checked.
Deactivate sensor balancing arm low	• 0 • 1	The sensor that detects whether the balancing arm is in the lowest position, is disabled.	The automatic cycle for the pressing chamber can still take place. The lowest position of the balancing arm is not checked. The user does not receive an audible signal (beep) if the balancing arm is in the lowest position.
Deactivate rope-break sensor 1	• 0 • 1	The sensor that detects the uppermost rope, is disabled.	A rope-break of the uppermost rope is no longer detected. Whether or not the rope is taken during the rolling-up of a new bale is no longer detected. The cutting is no longer detected.
Deactivate rope-break sensor 2	• 0 • 1	The sensor that detects the lowermost rope, is disabled.	A rope-break of the lowermost rope is no longer detected. Whether or not the rope is taken during the rolling-up of a new bale is no longer detected. The cutting is no longer detected.
Deactivate Driving speed sensor	• 0 • 1	The speed sensor for the pressing chamber is disabled.	The machine can still be operated. The speed will be calculated by another means.
Deactivate cage speed sensor	• 0 • 1	The speed sensor for the machine is disabled.	The machine can still be operated. The speed will be calculated by another means. After the joystick is placed in neutral, the parking brake is activated after 6 seconds.
Deactivate hydraulic oil level sensor	• 0 • 1	The sensor that checks the minimum level of the hydraulic oil, is disabled.	You no longer receive a message if not enough oil is present.
Minimum gross value binder	• 0V • 10V	This is the value that is read-in during the calibration of the binding system in the fully closed position.	If you change this value, you overwrite the value recorded from the calibration.

Parameters	Possible values.	Explanation	Result
Maximum gross value binder	• 0V • 10V	This is the value that is read-in during the calibration of the binding system in the fully closed position.	If you change this value, you overwrite the value recorded from the calibration.

In the **HARVEST** parameter group:

Parameters	Possible values.	Explanation
Delay closing cage	0 to 30 s	The time that is given for the bale to exit the pressing chamber before the pressing chamber starts closing again.
Delay automatic binding	0 to 60 s	The bale has reached its diameter. The set time ensures a delay between reaching the diameter and starting the automatic binding. This provides time to, if necessary, cancel the binding.
Delay ropes alarm	0 to 100 m	To give the ropes enough time to rotate with the bale. During this time, the rope-break alarms are generated. The time is based on the distance travelled by the machine. For example: 20 metres. During the 20 metres travelled by the machine, a rope-break alarm will not be generated.
Speed emptying pick-up	0 to 100% (per 10%)	The speed at which the pick-up (throughput) and pressing chamber rotate when emptying the pick-up. This is when the machine is stationary when the binding is started.
Speed unblocking pick-up	0 to 100% (per 10%)	This speed is used for manually moving the throughput forwards and backwards, and also for unblocking.
Speed cage binding	0 to 100% (per 10%)	The speed at which the binding process is performed.
Speed cage cutting ropes	0 to 100% (per 10%)	It is recommended to slow down the speed in order to cut better. Slow down the speed of the ropes.
Speed cage ejecting bales	0 to 100% (per 10%)	The speed of the pressing chamber during the ejection of the bale. By default, is set to 0. The bale will still roll out of the pressing chamber. Setting this is actually a waste of time.
Stop binding rope-break	• **YES** • **NO**	**YES**: In the event of a rope-break, the binding cycle is stopped. The pressing chamber stops and the binding system remains in the present position. (Recommended) **NO**: In the event of a rope-break, the binding cycle is not stopped. You must manually bind the bale yourself.
Emptying pick-up before binding	• **YES** • **NO**	Yes: the pick-up is emptied with the set speed. See **Speed emptying pick-up** parameter. No: the pick-up stops as soon as the machine stops and the binding starts.

Parameters	Possible values.	Explanation
Sensitivity rope-break alarm	0 to 99	Here, you set the sensitivity for determining the rope-break. You set a time delay. This is the time in seconds that may elapse before a rope-break alarm is displayed.
Threshold value frequency opening cage	0 to 15	Enter the frequency in Hertz. The sensors on the rope-break wheels measure the frequency of these rope-break wheels. As soon as the frequency decreases below the set value, a signal is given so that the pressing chamber may be opened. This parameter is for saving time, i.e. not having to wait for the rope-break wheels to become stationary so that the pressing chamber can be opened.
Speed rope opening pressing chamber	0 to 5	You can still set an additional delay after the **Threshold value frequency opening cage** parameter has been reached.
Change increment flax width	10 to 100	Here you can define the step size that is used to set up the thickness of the flax.

In the **CONTROL BINDER** parameter group:

You can set the various positions for the rope around the bale. Initially, start the rope in the centre of the bale (S). To bind the bale, the rope is transported to the 3 intermediate positions (0, 1 and 2), and finally to the cutting position (F). In addition to the position, you also set the number of revolutions that must take place. Usually, 1 to 3 revolutions per position.

CAUTION
The entered percentages per position must differ by at least 10% in order to guarantee optimal binding.

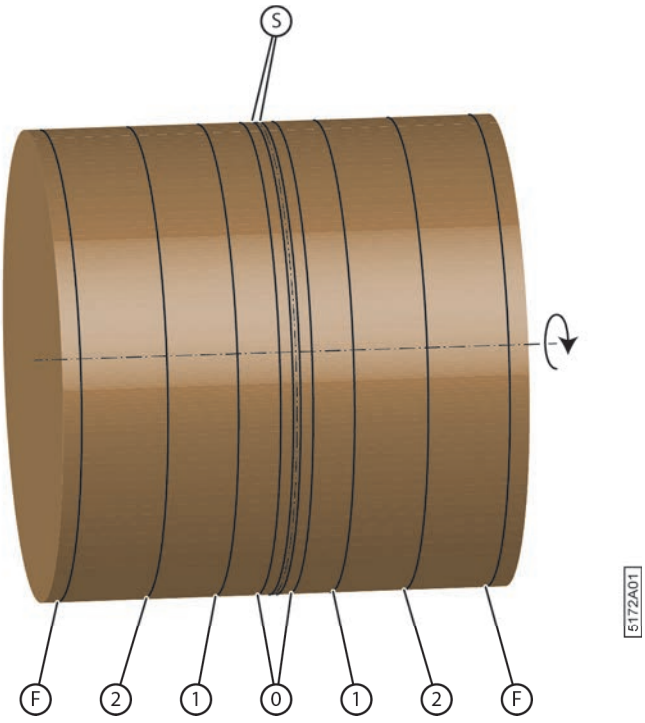


Fig. 83: Positions of the rope during binding

Parameters	Possible values.	Default value
Number of revs. position P0	0 to 15 revolutions per 0.1 revolution	3
Number of revs. position P1	0 to 15 revolutions per 0.1 revolution	4
Number of revs. position P2	0 to 15 revolutions per 0.1 revolution	2.5
Number of revs. position P cutting	0 to 15 revolutions per 0.1 revolution	1
Opening binder position PO	0 to 100% (per 1%)	5%
Opening binder position P1	0 to 100% (per 1%)	25%
Opening binder position P2	0 to 100% (per 1%)	55%
Opening binder position P cutting	0 to 100% (per 1%)	90%

In the **ENGINE PROTECTION** parameter group:

Parameters	Possible values.	Explanation
Maximum engine revs./min.	800 to 2600 revs./minute	Set the maximum engine revs./minute here. The revs./minute are already limited as follows: Field mode: 2400 revs./minute Road mode: 1900 revs./minute However, this value can be limited even more. For example, to 1800 revs./minute in order to limit the maximum speed.
Idling engine speed	800 to 1500 revs./minute	Sometimes, this revs./minute value must be increased because of too much vibration.
Engine speed ejecting bale	800 to 2600 revs./minute	This revs,/minute value determines the speed at which the pressing chamber door is opened and closed.

See also

- 8.2.41 Setting the thickness of the flax layer on page 121

8.2.69 Setting aside the machine after use

1. Lift your foot off the pedal if the machine is used in a driving mode with pedal.
2. Place the joystick to neutral.
3. Check that the parking brake via the 3-position switch is in the automatic position.
4. Stop the engine by turning the ignition switch key to the left, and remove it from the ignition.
5. Leave the cabin.
6. Wait at least 3 minutes and then switch off the battery by turning the battery key.
7. Place wheel chocks so that the machine cannot roll away.

8.3 Driving on public roads

8.3.1 Before you drive on public roads

CAUTION
Ensure that you have fulfilled the administrative requirements for driving on public roads. Adhere to the current local regulations.

1. Empty the machine.
   The machine must not contain flax residues or a bale in the pressing chamber.
2. Clean the machine.
3. Check that the pressing chamber is closed,
4. Check that the exiting profiles are folded.
5. Check that the ladder is folded.
6. Check the visibility from the cabin.
7. If necessary, switch on the road lighting and check that it works.
8. Check the operation of the flashing light and the indicators.
9. Place the machine in the ROAD mode.
   The work lights of the machine are automatically switched off. The work light behind the cabin is switched off and the flashing light is switched on.
10. Lock the pick-up.

8.3.2 Driving on public roads

Ensure that all safety precautions have been taken. See 8.3.1 Before you drive on public roads on page 136.

1. Close the cabin door.
2. Place the machine in the ROAD mode.
3. Depending on the selected driving mode, you use only the joystick, or the joystick in combination with the pedal.

   It is recommended to drive on public roads using the joystick in combination with the pedal, so that you can steer the machine with both hands.

   CAUTION
   - Maintain a safe speed when making journeys on public roads. Be vigilant when passing through built-up areas, encountering poor visibility on bends, poor visibility in bad weather, wet or muddy roads, etc.
   - Summon assistance when your field of vision is restricted, especially when reversing.

See also
- 8.2.24 Driving the machine (in driving mode with pedal) on page 112

8.3.3 Folding the exiting profiles

The exiting profiles must be folded before you drive the machine on a public road.

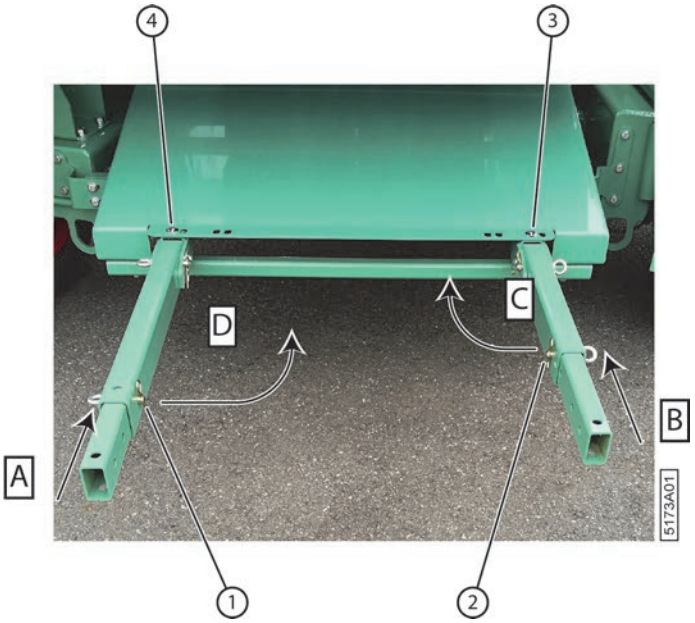


Fig. 84: Folding exiting profiles

1. Slide in the left-hand profile (A). Refit the eye-bolt and the locking pin with washer (1) into the profile.
2. Slide in the right-hand profile (A). Refit the eye-bolt and the locking pin with washer (2) into the profile.
3. Remove the bolt (3) from the right-hand profile.
4. Fold the right-hand profile (C).
5. Remove the bolt (4) from the left-hand profile.
6. Fold the left-hand profile (D).
7. Insert the bolt (3) through the opening and through the end of the left-hand folded profile.
8. Refit the bolt (4) in the opening.

See also

- 9.4.3 Adjusting the exiting of the bale on page 148

9 Adjustment

9.1 Configuring the workplace

9.1.1 Adjusting the driver's seat

See user manual for the driver's seat. When the machine is supplied, this user manual can be found in the storage compartment underneath the driver's seat.

See also
- 2.2.10 The driver's seat on page 34

9.1.2 Adjusting the height of the steering wheel

Fig. 85: Lever on steering column

1. Use your right hand to move the lever (1) on the steering column UPWARDS.
2. Use your left hand to grip a spoke of the steering wheel, as close as possible to the centre, and pull the steering wheel upwards or push the steering wheel downwards.
3. When the desired height has been reached, release the lever (1).

See also
- 2.2.12 The steering column on page 35

9.1.3 Tilting the steering column

You can tilt the steering column towards you or away from you so that you can easily steer, and easily alight from the machine.

Fig. 86: Lever on steering column

1. Use your right hand to move the lever (1) on the steering column DOWNWARDS.
2. Grip the edge of the steering wheel with your left hand, and move the steering column forwards or backwards.
3. When the desired tilt angle has been reached, release the lever (1).

See also

- 2.2.12 The steering column on page 35

9.1.4 Unrolling the sunblind

1. Pull the sunblind downwards to the desired position.
2. Release the sunblind.
   The sunblind remains in this position.

9.1.5 Rolling up the sunblind

1. Grip the sunblind with one hand.
2. Use the other hand to pull the cord.
   The sunblnd is released.
3. Continue to grip the sunblind with one hand while you carefully allow it to roll up.

9.1.6 Switching ON the air conditioning

Fig. 87: Switching ON the air conditioning

1. Press the button (2).
   The symbol is lit.
2. Use the control knob (1) to adjust the air flow.
3. Adjust the opening and the direction of the ventilation grills.
4. If the air flow is too cold, you can use the control knob (3) to increase the temperature of the hot air.

9.1.7 Switching ON the heating

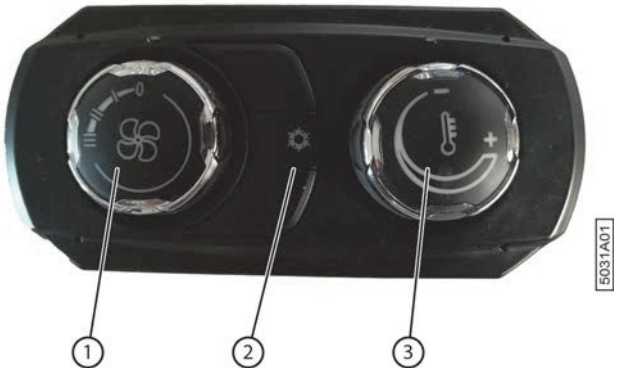


Fig. 88: Switching ON the heating

1. Switching OFF the air conditioning.
   The lamp in the symbol must extinguish.
2. Use the control knob (3) to adjust the temperature of the hot air flow.
3. Adjust the opening and the direction of the ventilation grills.
4. Use the control knob (1) to adjust the air flow.

9.2 Adjusting the pick-up

9.2.1 Adjusting the height of the pick-up

The pick-up must be adjusted so that the teeth are at the same height as the ground. If the pick-up is adjusted too low, stones and earth can be fed in with the flax, and cause damage to the pick-up. If the pick-up is adjusted too high, flax ends up underneath the pick-up, and remains there.

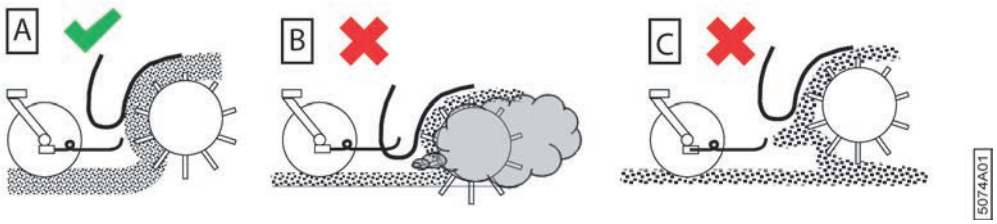


Fig. 89: Possible adjustments in height of the pick-up

Nr.	Description	More information
A	OK	The pick-up is correctly adjusted. The flax is optimally fed in.

Nr.	Description	More information
B	NOT OK	The pick-up is adjusted too low. The flax brings earth with it The pick-up wears quickly.
C	NOT OK	The pick-up is adjusted too high. The flax ends up underneath the pick-up and forms bundles.

Fig. 90: Adjusting the height of the pick-up

Executor: operator

1. Read the safety instructions and observe them.
2. Remove the split pin (1) from the handwheel.
3. Turn the handle (2):
   - Clockwise, to lower the pick-up
   - Anti-clockwise, to raise the pick-up
4. Refit the split pin into the handwheel.

9.2.2 Adjusting the tyre pressure of the front wheel

A low tyre pressure for the front wheel prevents the pick-up from springing upwards, and also ensures that the flax is collected more optimally.

Adjust the tyre pressure to 2.5 - 3 bar. If necessary, decrease the tyre pressure.

9.2.3 Adjusting the guides of the front wheel

The two guides (springs) on both sides of the front wheel are indispensable. They hold back the swath that is thrown forwards by the pick-up, in order to guide them back to the belts. If these guides are not adjusted optimally, this results in the formation of bundles. If these guides are not installed, this can result in a delay from the top or bottom of the flax that, in turn, can result in obstruction of of the swath.

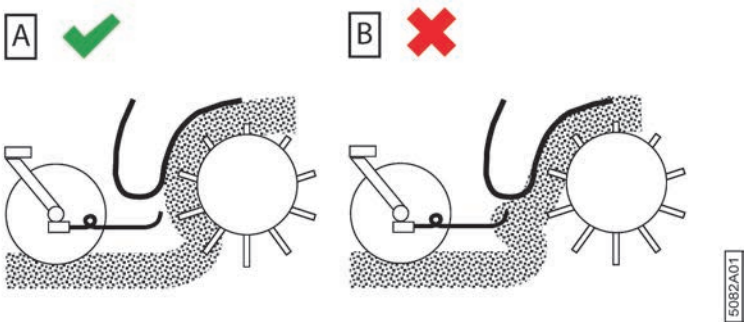


Fig. 91: Possible adjustments to the front wheel

Nr.	Description	More information
A	OK	The end of the coiled spring reaches the foldable guide. The flax is optimally fed in.
B	NOT OK	The end of the coiled spring does not reach the foldable guide. The flax accumulates and forms a bundle.

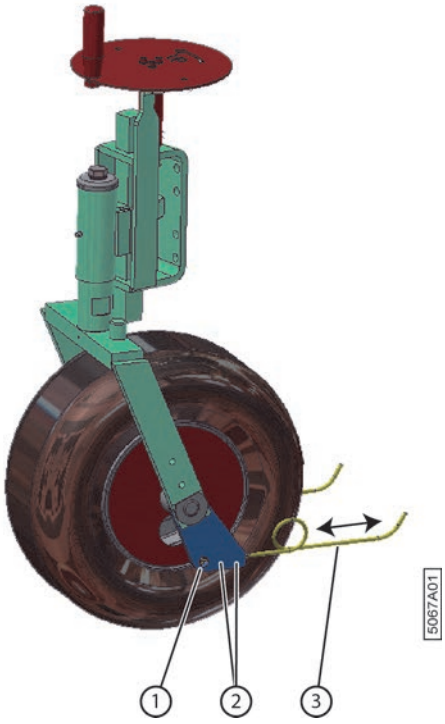


Fig. 92: Possible adjustments to the front wheel

1. Switch OFF the machine safely.
2. Undo the socket screws (2)
3. Slide the guide (3) until the end is flush with the metal block (1).
4. Tighten the socket screws.

9.2.4 Adjusting the tension of the conveyor belts

The tension on the conveyor belt is obtained by moving the non-driven pulley. If the conveyor belts slip, the tension must be increased.

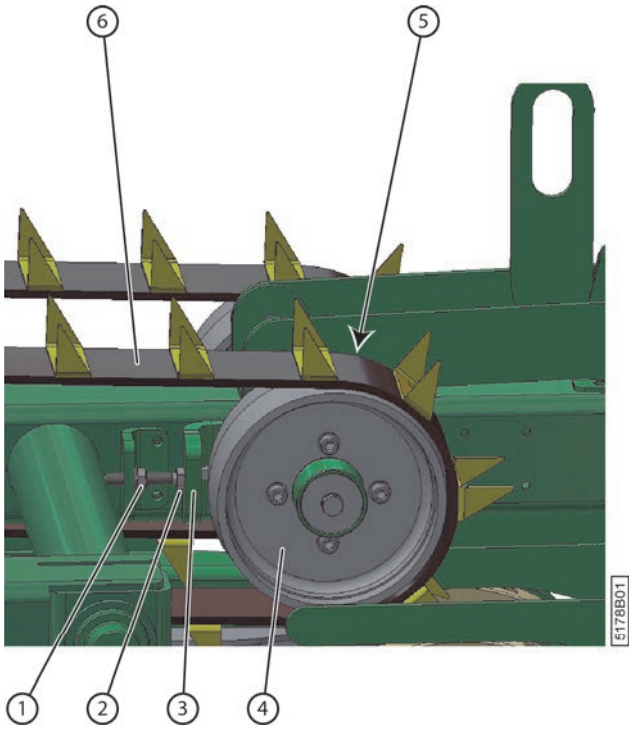


Fig. 93: Adjusting the tension of the belts

1. Switch OFF the machine safely.
2. Undo the 4 nuts (5) of the non-driven pulley.

   The 4 nuts (5) are located between the non-driven pulley and the chassis of the pick-up. The part (3) on which the non-driven pulley is mounted, is equipped with slotted holes, and is secured by the 4 nuts.
3. Loosen the lock nut (1) the required distance.
4. Turn the bolt (2):
   - anti-clockwise to tension the conveyor belt
   - clockwise to loosen the conveyor belt
5. Tighten the lock nut.
6. Tighten the 4 nuts of the non-driven pulley.

See also

- 9.2.5 Shortening the conveyor belts on page 144
- 10.2.14 Checking the tension of the conveyor belts on page 165
- 10.2.35 Check the condition and the alignment of the conveyor belts on page 176

9.2.5 Shortening the conveyor belts

If increasing the tension does not stop the slipping, the belts must be shortened.

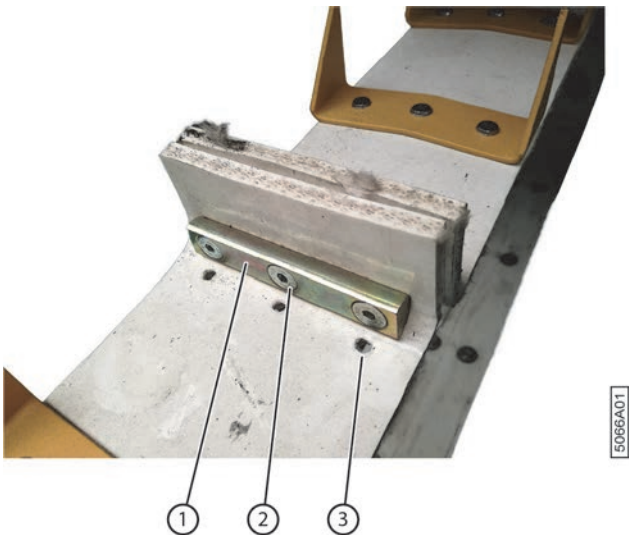


Fig. 94: Shortening the conveyor belts

1. Switch OFF the machine safely.
2. Loosen the conveyor belts, see 9.2.4 Adjusting the tension of the conveyor belts on page 144.
3. Unscrew the 3 socket-screws (2) and remove the connector (1) for the belts.
4. Move the connector for the belts to the 3 adjacent holes (3).
   You do not have to make holes yourself. The holes already exist in the belt.
5. Secure the connector.

See also

- 9.2.4 Adjusting the tension of the conveyor belts on page 144

9.2.6 Adjusting the scraper of the conveyor belt

Before adjusting the scraper, you must first check the tension of the conveyor belts.

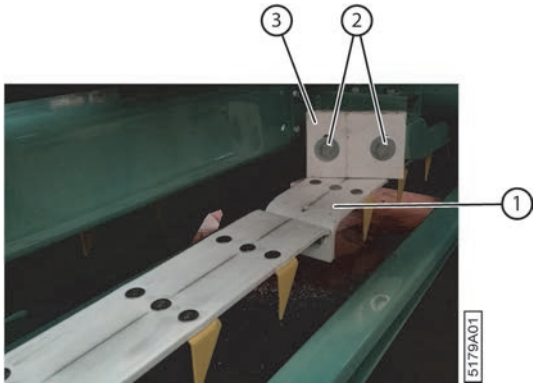


Fig. 95: Adjusting the scraper

1. Switch OFF the machine safely.
2. Undo the bolts (2).
3. Place the scraper (3) so that it fully touches the belt (1).

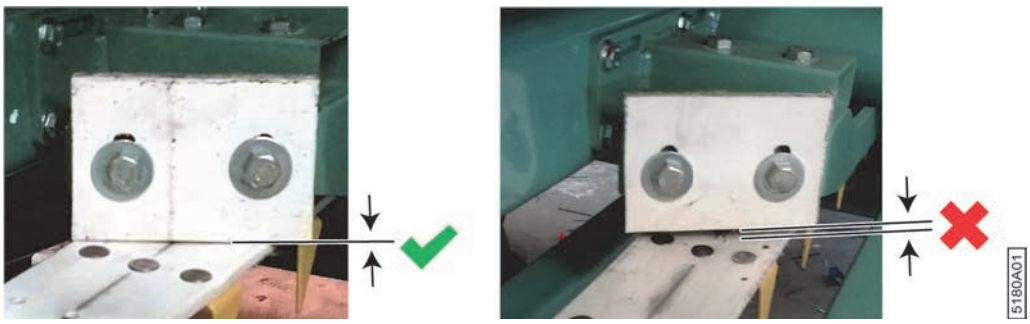


Fig. 96: Scraper OK or NOT OK

4. Retighten the bolts.

9.3 Adjusting the rope tensioning system

9.3.1 Adjusting the rope tensioning system

The rope tensioners (1) determine the tension on the ropes. The rope tension varies as the bale is created. The tension on the ropes is controlled by the lever (7) that is operated by the control stop (6) of the pressing chamber. The stop initially pushes the lever fully in so that when beginning to create a bale, less tension is applied to the rope tensioners than during the end of bale creation. The larger the bale is, the higher the stop is lifted, and the greater the pressure that is applied to the rope tensioners.

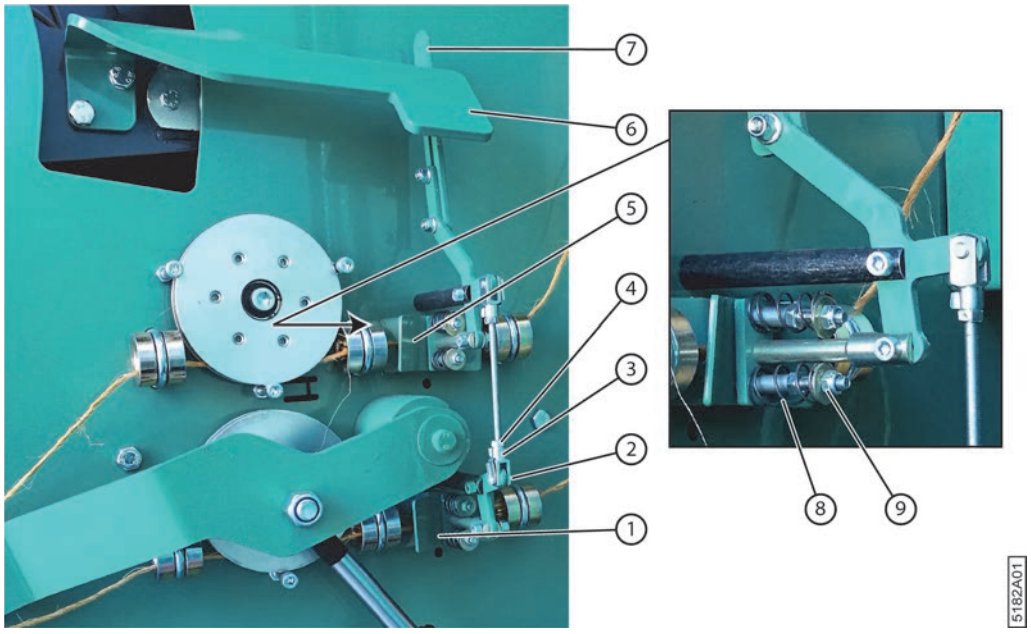


Fig. 97: Adjusting the rope tensioners

1. Adjust the rope tension by the tightening or loosening the nut (9). This results in the spring (8) applying more or less pressure to the rope tensioner (1). The optimal desired tension must be found by trial and error.
   - The tension must not be too high, so that initially, the ropes are taken by the flax in the cage.
   - The tension must not be too low, so that the ropes do not oscillate too much. If the ropes oscillate too much, they can become attached to a part of the machine, and this can result in a rope break.
2. Press the lever (7) fully in, and check that the tension of both rope tensioners is the same.

3. If this is not the case, you use the threaded rod to adjust the tension. To do this, undo the clip (3), loosen the locknut (4) and rotate the holder (2) on the threaded rod to the desired position. Retighten everything and repeat step 2.

9.4 Adjusting the pressing chamber

9.4.1 Adjusting the clamp pressure

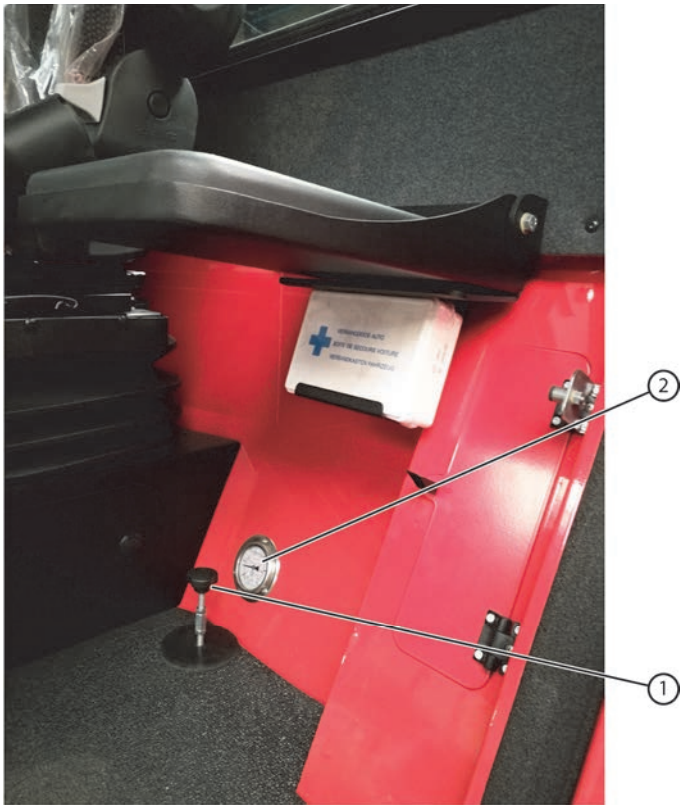


Fig. 98: Adjusting the clamp pressure

The clamp pressure for creating the bale can be adjusted from the cabin. The operating pressure is read when the bale is half rolled-up, or at the end just before the bale is ejected. The recommended clamp pressure is 130 bar. The clamp pressure is lower at the start of the rolling-up.

1. Check the clamp pressure on the manometer (2) beside the driver's seat.
2. Turn the handwheel (1) beside the driver's seat:
   - Clockwise to increase the pressure
   - Anti-clockwise to decrease the pressure

9.4.2 Mounting a top plate

If a shorter type of flax is harvested, a top plate must be installed in the pressing chamber. One part is installed in the fixed part of the pressing chamber, and the other part is installed in the movable part of the pressing chamber.

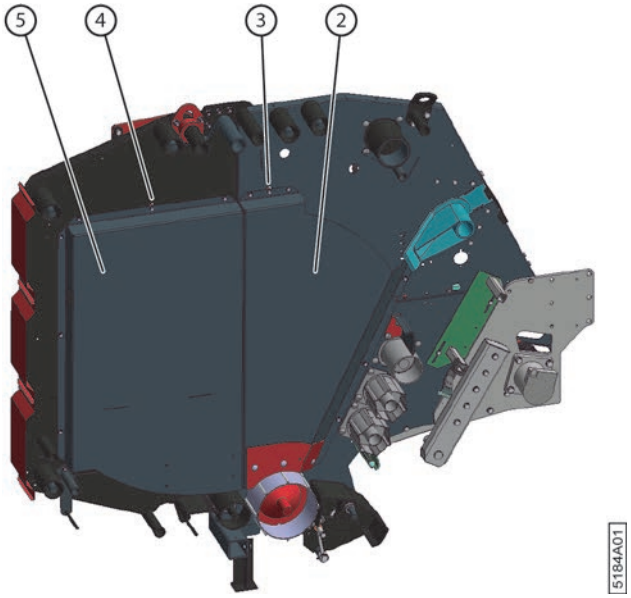


Fig. 99: Mounting a top plate

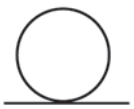
Perform this assignment with 2 persons!

1. Fully open the pressing chamber.
2. Switch OFF the machine safely.
3. Install the mechanical lock on both cylinders.
4. Hang the top plate (2) on the fixed part of the pressing chamber using the fixed bolt (3) in the keyhole.
5. Install all bolts.
6. Hang the top plate (5) on the movable part of the pressing chamber using the fixed bolt (4) in the keyhole.
7. Install all bolts.

9.4.3 Adjusting the exiting of the bale

You can select how the bale exits onto the field:

- On the round side of the bale
- On the flat edge of the bale

Exiting of bale	Explanation	Advantage	Disadvantage
	The bale is rolled out of the pressing chamber.	The round side of the bale is more able to withstand rain. For example: if the bale is not immediately loaded.	The bale can roll away on sloping fields. Each time, the bale must be tilted before it can be loaded.
	The bale is rolled out of the pressing chamber and is tilted.	The bale is ready to be loaded.	If the bale is not immediately loaded, then rain can penetrate the entire bale.

At the rear of the machine, you can adjust the exiting profiles. The exiting profiles help the bale to roll far enough out of the pressing chamber and also tilt the bale.

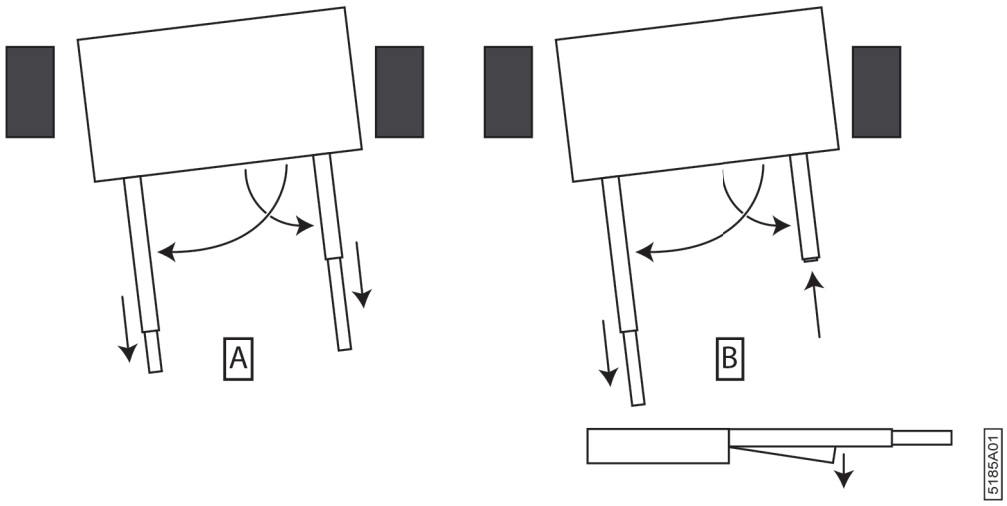


Fig. 100: Adjusting the exiting of the bale

1. Switch OFF the machine safely.
2. Fully extend the left-hand exiting profile and secure it using the bolt.
3. Fully extend the right-hand exiting profile and secure it using the bolt.
4. Depending on the desired exiting of the bale, you adjust the following:
   - right (A): slide the right-hand exiting profile out the same distance as the left-hand exiting profile. If necessary, lower both exiting profiles so that the bale easily rolls out of the pressing chamber.
   - flat (B): slide the left-hand exiting profile out and slide the right-hand exiting profile in. If necessary, lower the right-hand exiting profile so that the bale tilts more easily.

NOTE
In the case of a towed baling machine where the tractor track (distance between the wheels) exceeds 2,350 mm, you must briefly drive backwards when ejecting the bale, if the previous bales have not yet been moved or collected.

See also
- 8.3.3 Folding the exiting profiles on page 136

9.4.4 Adjusting the automatic chain tensioner

Some chains are automatically tensioned by spring tensioners. Regularly check the correct chain tension and, if necessary, adjust the tension.

Executor: Maintenance technician

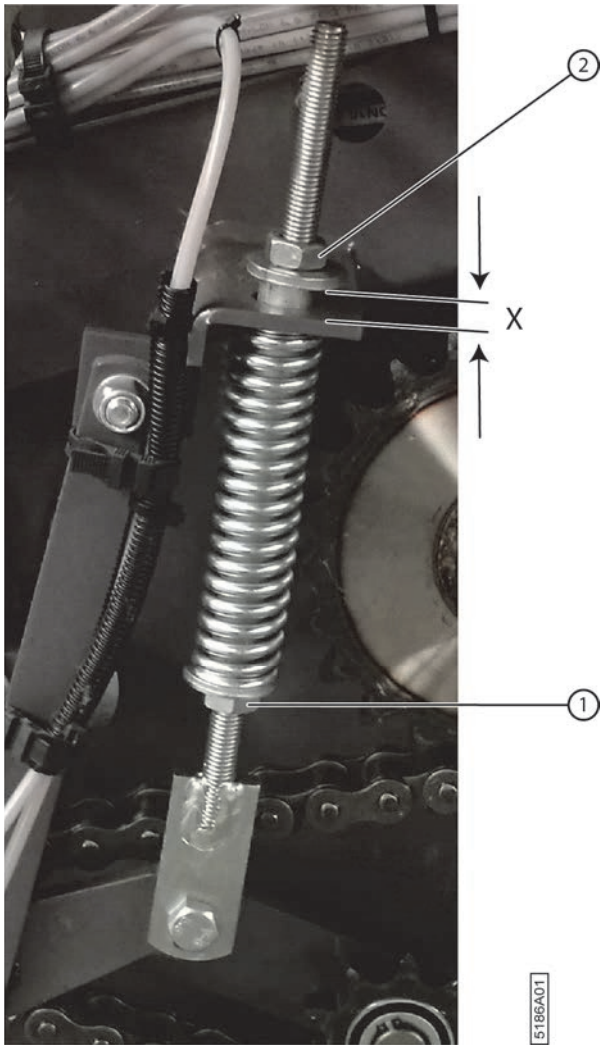


Fig. 101: Adjusting the automatic chain tensioner

1. Read the safety instructions and observe them.
2. Switch OFF the machine safely.
3. Open the front rope cabinet.
4. Undo the 2 bolts (5) and (6) and swing open the protective panel.

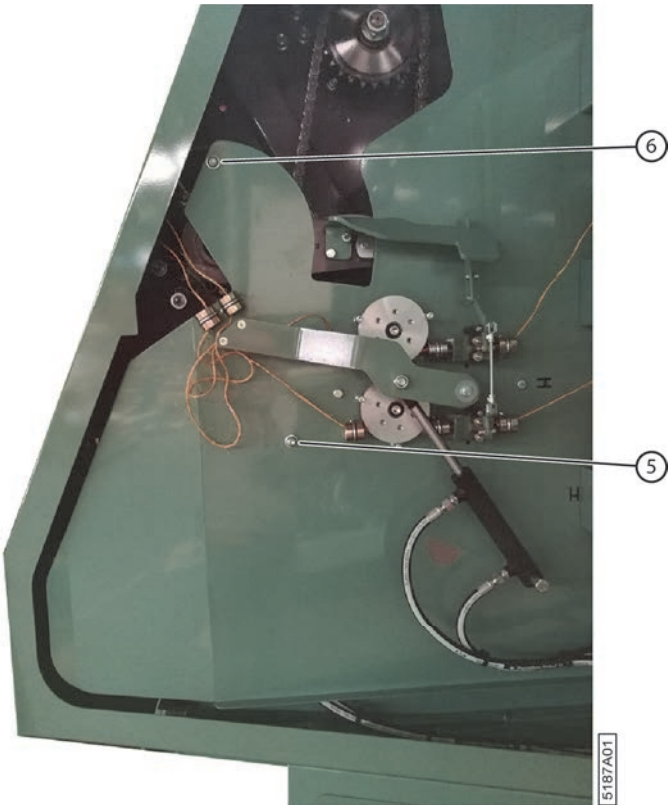


Fig. 102: Protective panel rope cabinet

5. Undo nut (2).
6. Turn nut (1) until distance X is between 10 and 15 mm.
7. Retighten nut (2).
8. Repeat step 4 for all automatic chain tensioners.
9. Close the protective panel and secure it using the 2 bolts.
10. Close the cabinet door.

See also

- 9.4.5 Adjusting the manual chain tensioner on page 151
- 9.4.5 Adjusting the manual chain tensioner on page 151
- 10.2.49 Checking the chain tension on page 182

9.4.5 Adjusting the manual chain tensioner

Some chains are tensioned by manually adjustable chain tensioners. Regularly check the correct chain tension and, if necessary, adjust the tension.

Executor: Maintenance technician

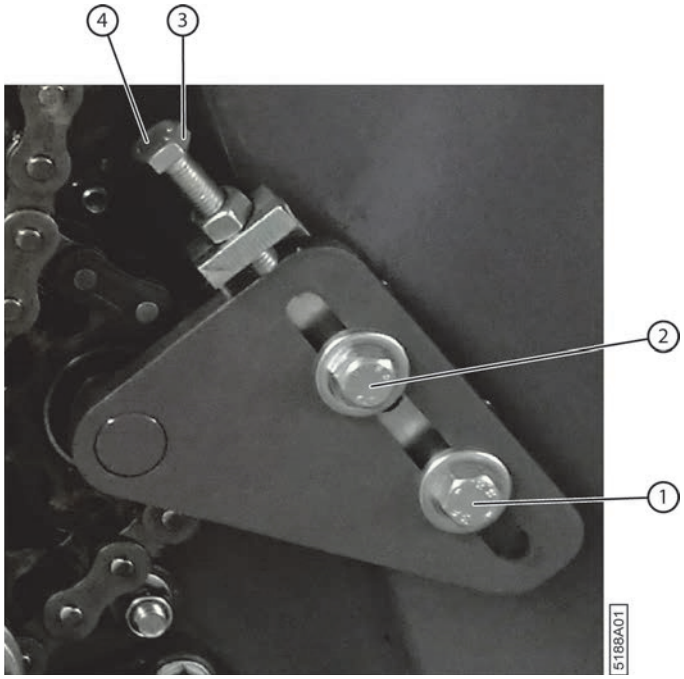


Fig. 103: Adjusting the manual chain tensioner

1. Switch OFF the machine safely.
2. Open the front rope cabinet.
3. Undo the 2 bolts (5) and (6) and swing open the protective panel.

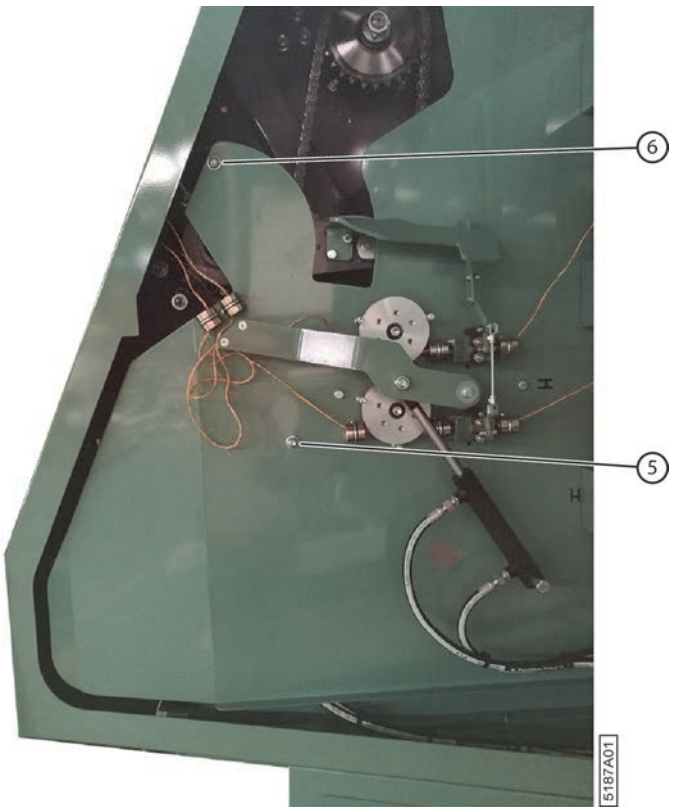


Fig. 104: Protective panel rope cabinet

4. Undo the bolts (1) and (2).
5. Undo nut (3).
6. Use bolt (4) to adjust the tension in the chain.

7. Tighten nut (3).
8. Tighten the bolts (1) and (2).
9. Repeat from step 4 for all manual chain tensioners.
10. Close the protective panel and secure it using the 2 bolts.
11. Close the cabinet door.

See also

- 9.4.4 Adjusting the automatic chain tensioner on page 149
- 9.4.4 Adjusting the automatic chain tensioner on page 149

9.4.6 Adjusting the clamping between the mushroom and the metal guide

The mushroom must perfectly seal with the metal rope guide so that the ropes can be clamped and cut. If the mushroom is not optimally aligned with the metal guide, the ropes will not be cut.

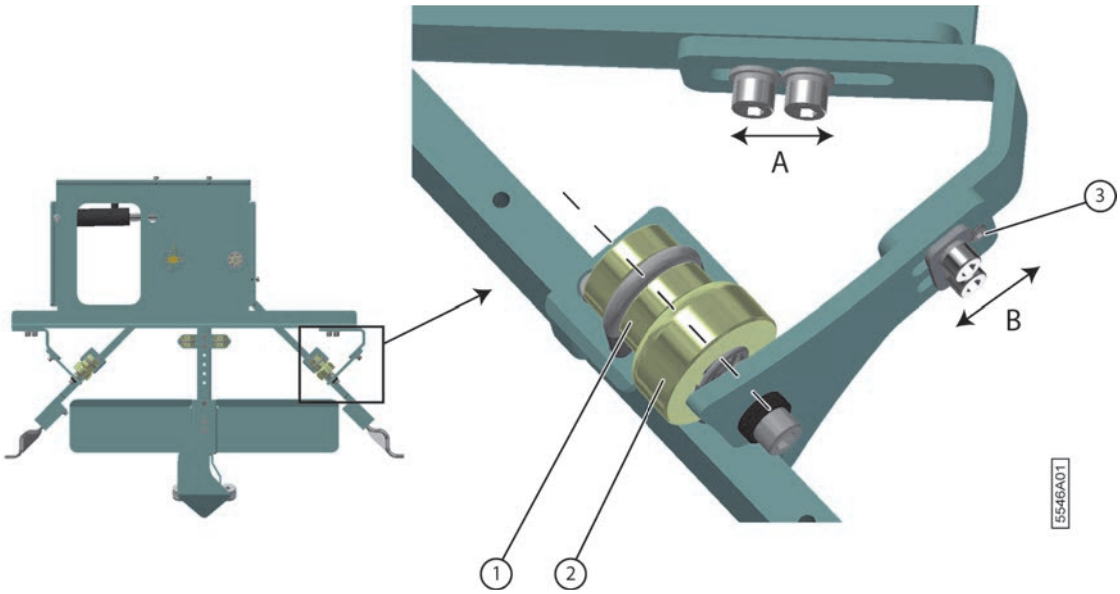


Fig. 105: Adjusting clamping between mushroom and metal guide.

1. Loosen the securing screw (3).
2. Loosen the socket screws in positions A and B so that you can move the mushroom.
3. Align the mushroom (2) with the metal guide (1) so that it seals perfectly with the metal guide.

   If you cannot slide the mushroom against the metal guide, you can loosen the metal guide and slide it up against the mushroom.
4. Tighten all socket screws.
5. Tighten the locking screw.
6. Insert a piece of rope between the mushroom and the metal guide and test the clamping.
7. If necessary, slightly tighten the socket screw of the mushroom to provide additional clamping force.

10 Maintenance

10.1 Safety regulations before starting the maintenance

The design of the machine enables maintenance to be kept to a minimum.

WARNING
Clean the machine.

WARNING
Switch OFF the machine safely.

WARNING
After performing maintenance, ensure that all protective panels are correctly fitted.

WARNING
Use wheel chocks to prevent the machine from rolling away.

WARNING
Ensure that the surface is clean, safe and solid.

WARNING
Post a warning sign and inform the personnel that the machine may NOT be started.

WARNING
Work underneath a hoisted machine or a hoisted part may only take place when the machine or part is safely supported.

WARNING
Wear suitable personal protective equipment (safety shoes, safety gloves, hearing protection, safety goggles, ...) and wear overlapping work clothing.

WARNING

Wait until the engine has cooled down before performing maintenance in the engine compartment.

WARNING
Never open a reservoir before it has cooled down. Hot pressurised liquid can be released when a reservoir is opened.

WARNING
NEVER use your hands to try to seal a hydraulic leak! High-pressure liquid can cause damage to your skin and clothing. Immediately summon a doctor if an accident occurs. You can use paper or cardboard to easily detect leaks in a hydraulic system!

WARNING
Ensure that all cylinders are fully extended or retracted so that they cannot move in an uncontrolled manner.

WARNING
Only use original spare parts.

WARNING
The maintenance may only be performed by qualified personnel.

WARNING
Use suitable appliances to perform work above head height. Climbing onto the machine is prohibited.

10.1.1 Switching OFF the machine safely

Depending on the nature and the duration of the stop, position the machine so that it is preferably level.

1. Stop and lock all movement.
   For example:
   - Driving and the parking brake
   - The moving parts of the machine and the parts that drop due to gravity.
2. Turn the ignition key completely counter-clockwise.
   The engine stops and the control unit stops. Since the diesel engine is switched OFF, the engine shaft stops turning. The hydraulic pumps that are directly connected, stop building up pressure.
3. Remove the ignition key.
   This prevents the machine from being switched ON inadvertently.
4. Wait at least 3 minutes.
   The diesel engine shuts down correctly, so that fault messages are are not generated.
5. Turn the battery key fully counter-clockwise.
   The battery does not lose its charge due to leakage losses.
6. Remove the battery key.
   The machine can then no longer be switched ON by unauthorised persons.

10.2 Preventive maintenance

10.2.1 Maintenance schedule for the operator

Part	Action	Interval	Unit	Instruction
Engine	Visually check the seals and the condition of the engine	10	hours	See manual supplied for DEUTZ engine.
Engine	Check the seals of the exhaust gas system and the exhaust gas post-treatment system	10	hours	See manual supplied for DEUTZ engine
Engine	Check and clean the air filter.	1	day	See manual supplied for DEUTZ engine
Engine	Check the coolant level and, if necessary, top it up.	10	hours	See manual supplied for DEUTZ engine
Engine	Check the lubricating oil level and, if necessary, top it up.	10	hours	See manual supplied for DEUTZ engine

Part	Action	Interval	Unit	Instruction
Engine	Empty the water collection reservoir in fuel pre-filter.	10	hours	See manual supplied for DEUTZ engine
Cabin	Clean the cabin	1	day	10.2.23 on page 171
Cabin	Check the air filter in the cabin	1	day	10.2.36 on page 176
Cabin	Clean the air filter in the cabin	1	day	10.2.37 on page 177
Hydraulic system	Check the oil level of the hydraulic tank.	1	day	10.2.38 on page 177
Pressing chamber	Lubricate the pressing chamber	1	day	10.2.66 on page 191
Pressing chamber	Lubricate the chains	1	day	10.2.67 on page 193
Pressing chamber	Check the tension of the chains	1	day	10.2.49 on page 182
Pressing chamber	Check the play in the crankshaft	1	day	10.2.48 on page 181
Pressing chamber	Check the condition and the alignment of the pressing chamber belts	1	day	10.2.58 on page 187
Machine	Fill the fuel tank	1	day	10.3.18 on page 209
Machine	Check the AdBlue level	1	day	10.2.32 on page 174
Machine	Clean the radiators for the airco and for the hydraulic oil	1	day	10.2.22 on page 170
Machine	Use compressed air to clean the machine	1	day	10.2.8 on page 162
Machine	Clean the spray-suppression devices	1	day	10.2.9 on page 162
Engine	Clean the engine radiators	1	day	10.2.21 on page 169
Engine	Check the engine pipes	1	day	10.2.13 on page 164
Pick-up	Check the condition and the alignment of the conveyor belts	1	day	10.2.35 on page 176
Pick-up	Lubricate the front wheel	1	day	10.2.63 on page 189
Pick-up	Check the alignment and wear of the scraper	1	day	10.2.12 on page 164
Pick-up	Check the tension of the conveyor belts	1	day	10.2.14 on page 165
Pick-up	Check the teeth of the pick-up drum	1	day	10.2.28 on page 173
Pick-up	Check the play in the front wheel	1	day	10.2.29 on page 174
Pick-up	Check the rubber of the drive rollers	1	day	10.2.30 on page 174
Pick-up	Check the guides and guiding arcs of the pick-up	1	day	10.2.31 on page 174
Wheels	Check the operation of the brakes	1	day	10.2.27 on page 173
Machine	Check all bolted connections	After 1st 50	hours	10.2.11 on page 163

Part	Action	Interval	Unit	Instruction
Binding system	Check the cutting of the knives	1	week	10.2.55 on page 186
Binding system	Check the rope guides for wear	1	week	10.2.56 on page 186
Binding system	Check the binding system for deformation and wear.	1	week	10.2.57 on page 187
Cabin	Check the level of windscreen washer liquid	1	week	10.2.34 on page 175
Electrical system	Test the pressing chamber sensors	1	week	10.2.53 on page 185
Electrical system	Test the speed sensors	1	week	10.2.54 on page 186
Electrical system	Test the rope-break sensors	1	week	10.2.52 on page 185
Hydraulic system	Check the hydraulic connections for leaks	1	week	10.2.43 on page 180
Machine	Check the battery	1	week	10.2.45 on page 181
Front wheel	Check the tyre pressure	1	week	10.2.25 on page 172
Wheels	Check the tyre pressure	1	week	10.2.25 on page 172
Wheels	Tighten the wheel nuts	1	week	10.2.26 on page 172
Machine	Use a pressure washer to clean the machine	1	year	10.2.10 on page 162

10.2.2 Maintenance schedule for the maintenance technician

In the event of 2 intervals being displayed, the instruction must only be performed for the interval that is mentioned first.

Part	Action	Interval	Unit	Instruction
Hydraulic system	Replace the hydraulic feed pressure filter	After 1st 50	hours	10.2.15 on page 165
Hydraulic system	Replace the hydraulic feed pressure filter	200 1	hours year	10.2.15 on page 165
Hydraulic system	Replace the hydraulic suction filter (Arlon filter 10µ)	1	year	10.2.50 on page 183
Engine	Maintain the battery	1	year	10.2.46 on page 181
Engine	Check the concentration of additives added to the coolant (before the winter!)	500 1	hours year	See DEUTZ manual
Engine	Replace the filter of the AdBlue feed pump	500	hours	See DEUTZ manual
Engine	Replace the oil	500	hours	See DEUTZ manual
Engine	Replace the lubricating oil filter (every time that the oil is replaced)	500	hours	See DEUTZ manual
Engine	Check the belts	500	hours	See DEUTZ manual
Engine	Replace the air filter	500 2	hours year	See DEUTZ manual

Part	Action	Interval	Unit	Instruction
Engine	Check fasteners, pipes / flanges and, if damaged, replace them.	1000	hours	See DEUTZ manual
Engine	Check the battery connections	1000	hours	See DEUTZ manual
Engine	Replace the fuel filter	1000	hours	See DEUTZ manual
Engine	Replace the fuel pre-filter with water separator	1000	hours	See DEUTZ manual
Engine	Check the engine support (tighten it or, if damaged, replace it)	1000	hours	See DEUTZ manual
Engine	Check the V-belt and tensioning pulley	1000	hours	See DEUTZ manual
Engine	Check the surface of the radiator (drain oil or condensed water)	1000	hours	See DEUTZ manual
Hydraulic system	Replace the hydraulic oil	2000	hours	10.2.40 on page 178
Engine	Clean the exhaust of the turbo compressor	6000	hours	See DEUTZ manual
Electrical system	Check the electrical system	1	year	10.2.47 on page 181
Pressing chamber	Replace the connecting pin and pressing chamber belts	1	year	10.3.13 on page 206
Engine	Replace the fuel filter	1	year	See DEUTZ manual
Engine	Replace the fuel pre-filter with water separator	1	year	See DEUTZ manual
Engine	Replace the lubricating oil	1	year	See DEUTZ manual
Engine	Replace the lubricating oil filter	1	year	See DEUTZ manual
Engine	Replace the timing belt	2	years	See DEUTZ manual
Engine	Replace the filter of the AdBlue feed pump	2	years	See DEUTZ manual
Engine	Replace the coolant	2	years	See DEUTZ manual
Pick-up	Replace the teeth of the pick-up drum	2	years	10.3.11 on page 203 10.3.12 on page 204
Binding system	Replace the fingers of the binding system	3	years	Type 1: 10.3.21 on page 211 Type 2: 10.3.22 on page 211
Pressing chamber	Replace the wear plates of the top- and/or bottom plates	4	years	10.3.15 on page 207
Pressing chamber	Replace the chains and the sprocket wheels	4	years	10.3.14 on page 207
Hydraulic system	Replace the hydraulic hoses	6	years	10.3.8 on page 201

10.2.3 Maintenance schedule for specialised maintenance technician

Part	Action	Interval	Unit	Instruction
Engine	Adjust the valves	2000	hours	See DEUTZ manual
Engine	Replace the de-aerator for the sump of the crankshaft	6000	hours	See DEUTZ manual
Engine	Replace the V-belt and tensioning pulley	4000	hours	See DEUTZ manual
Air conditioning	Replace the dry filter	3	years	

10.2.4 Maintenance schedule for the authorised service partner

This maintenance may only be performed by an authorised service partner of DEUTZ. Contact DEUTZ to find your local authorised service partner.

Part	Action	Interval	Unit	Instruction
Engine	Overhaul the engine	1	year	See DEUTZ manual

10.2.5 Permitted additives

Additive	Quantity	Brand	Type	More information
AdBlue	20 l	TOTAL	In accordance with DIN 70070 In accordance with DIN 22241	See DEUTZ manual
Hydraulic oil	145 l	TOTAL	EQUIVIS ZS 68	
Engine coolant	25 l	TOTAL	Glacelf auto supra	See DEUTZ manual
Fuel	350 l	TOTAL	Diesel extra machines	See DEUTZ manual
Windscreen washer liquid	1 l	TOTAL	ELF Glass Clean	
Engine oil	11.5 l	TOTAL	Rubia Works 3000 10W40	See DEUTZ manual
Lubricant		TOTAL	Grease Marson EPL (Multis EP, LICAL EP2)	See the lubrication plan.
Airco coolant	1 kg		Classification EC 67/548 or EC 1999/45 R134A	Work on the air conditioning may only be performed by qualified personnel from an approved company.
Airco oil	250 ml		SP10	

10.2.6 Locking or unlocking the pressing chamber

Executor: Maintenance technician

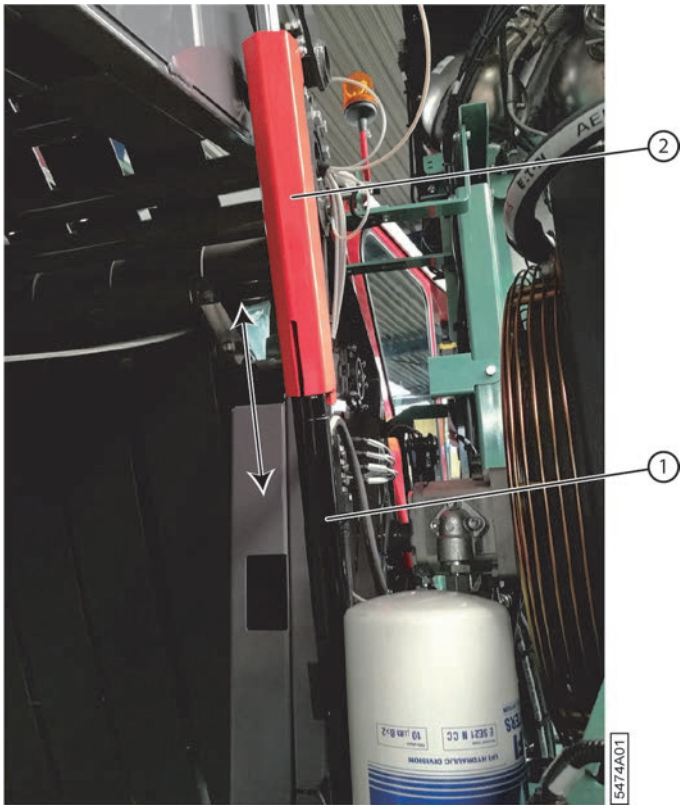


Fig. 106: Locking the pressing chamber

1. Open the pressing chamber.
2. Switch OFF the machine safely.

WARNING
Risk of crushing You can become trapped between the pressing chamber door and the pressing chamber. Before you can enter the pressing chamber, it must first be locked on both sides. During the locking/ unlocking of the pressing chamber door, you may NOT be present in the pressing chamber, and you must remain outside the movement zone of the pressing chamber door.

3. Place the bottom of the lock (2) on the end of the cylinder housing (1).
4. To unlock: slide the lock upwards slightly, then lower it over the cylinder housing.

10.2.7 Warnings when cleaning the machine

WARNING
Always consult the Safety Information Sheet from the manufacturer or other product information before you use a cleaning product.

WARNING
Never clean an aluminium part using solvents that react with aluminium. For example: methylene chloride, 1,1,1-trichloroethane, perchlorethylene,...

WARNING
Do not light a fire, generate sparks or use a naked flame. Observe all explosion prevention regulations.

WARNING
Never use a naked flame to clean the machine or parts thereof.

WARNING
Only use cleaning agents that have been developed for the intended use.

WARNING
Pay attention to the flashpoint of the solvent.

WARNING
Ensure adequate ventilation of the spaces in order to guarantee the removal of the vapours. Avoid prolonged inhalation of these vapours.

See also
- 10.2.8 Using compressed air to clean the machine on page 162

10.2.8 Using compressed air to clean the machine

Executor: operator

CAUTION
Where possible, it is recommended to use suction to prevent dangerous dust emissions.

1. Switch OFF the machine safely by using the LoToTo procedure.
2. Use compressed air to blow dirt off the machine.

   CAUTION
   Never use your hands or feet to remove dirt!

3. After cleaning, check that all pictograms are still legible.

See also
- 10.2.7 Warnings when cleaning the machine on page 161

10.2.9 Cleaning the spray-suppression devices

CAUTION
Never use your hands or feet to remove dirt!

Executor: operator

1. Read the safety instructions and observe them.
2. Remove all dirt from the spray-suppression devices and all dirt between the wheel and the chassis.
   Dirt accumulation between the wheel and the chassis can result in the wheel becoming hot and damage to the wheel.

10.2.10 Cleaning the machine using a pressure washer

CAUTION
Never use your hands or feet to remove dirt!

TIP
Clean the machine using a pressure washer on a sunny day. This allows the machine to dry quickly after the cleaning.

Executor: operator

1. Read the safety instructions and observe them.
2. Use plastic to cover electronic valves, electrical cabinets, etc.
3. Clean the machnie and pay attention to the following points:
   - Do not spray in the vicinity of bearings. If you spray onto bearings, the dirt is driven inwards and this can result in the bearings seizing or being subject to abnormal or excessive wear.
   - Do not spray in the vicinity of electrical cabinets, hydraulic components, etc. This can result in dirt being driven inwards and causing excessive wear.
   - Spray using a wide jet of water.
   - Maintain a minimum distance of 60 cm between the sprayhead and the machine.
   - Spray using a pressure of less than 100 bar.
   - Spray using water whose temperature does NOT exceed 70 °C.
   - Do NOT use any detergents or aggressive products to remove oils from the machine.
4. After cleaning, check that all pictograms are still legible.
5. Place the machine in the sun for several hours so that it can dry, and allow the machine to run in-situ for 15 minutes.

See also
- 5.2 Storing the machine on page 80

10.2.11 Checking the bolted connections

Executor: qualified technician

1. Switch OFF the machine safely by using the LoToTo procedure.
2. Use a torque wrench to check the tension of the bolted connections in accordance with the table.

A	SW	Ma (Nm)		
		Steel grade		
		8,8	10,9	12,9
M4	7	3.1	4.4	5.25
M5	8	6.15	8.65	10.4
M6	10	10.5	18	18
M7	11	17.5	25	29
M8	13	26	36	43
M10	15-16-17	51	72	87
M12	18-19	89	125	150
M14	22	141	198	240
M16	24	215	305	365
M18	27	295	420	500
M20	30	420	590	710
M22	32	570	800	960
M24	36	725	1,020	1,220
M27	41	1,070	1,510	1,810
M30	46	1,450	2,050	2,450

The table includes target values

- A = diameter screw thread
- SW = spanner size
- Ma = tightening torque (Nm)

10.2.12 Checking the alignment and wear of the scraper

Before performing this instruction, first check the tension of the conveyor belts.

Executor: Operator

1. Read the safety instructions and observe them.
2. Switch OFF the machine safely.
3. Check that the scraper (3) is mounted so that it completely touches the conveyor belt (1).

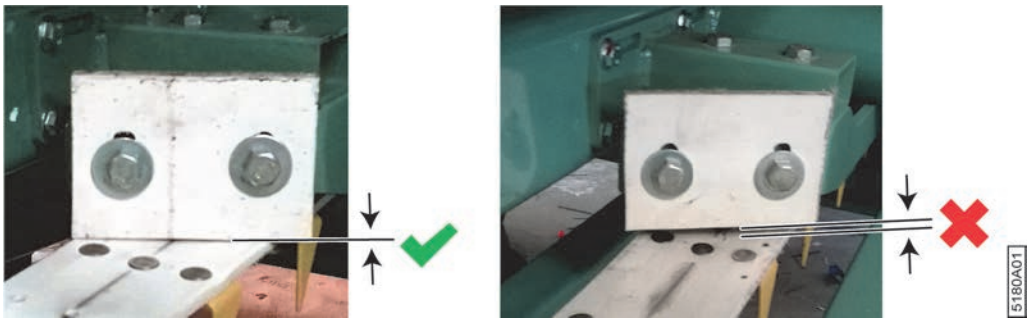


Fig. 107: Scraper OK or NOT OK

4. Undo the bolts (2).

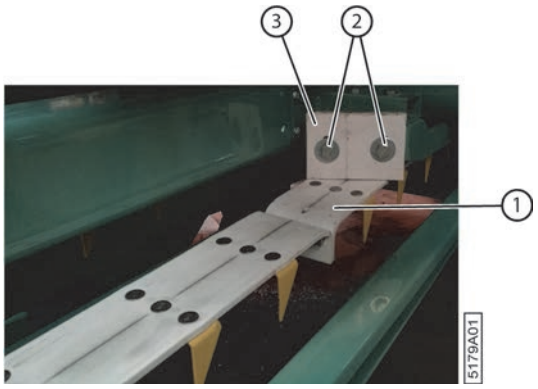


Fig. 108: Scraper OK

5. Move the scraper (3) so that it completely touches the conveyor belt (1).

   If the scraper cannot be installed so that it completely touches the conveyor belt, because it is worn too much, you can install the scraper the other way around. If both sides are worn, you must replace the scraper.
6. Tighten the bolts (2).

10.2.13 Checking the engine pipes

Executor: operator

1. Read the safety instructions and observe them.
2. Open the engine compartment.
3. Check the connections between the engine and other components.

See also
- 2.2.33 The engine compartment on page 49

10.2.14 Checking the tension of the conveyor belts

Executor: operator

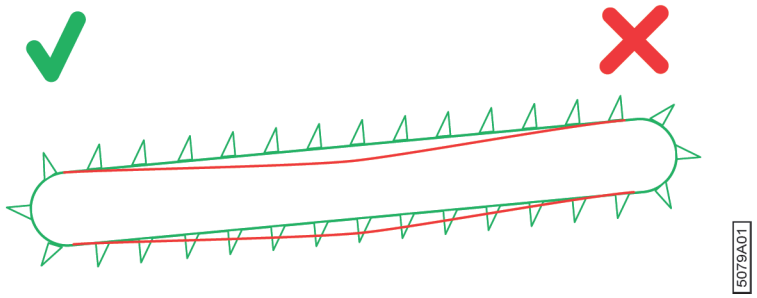


Fig. 109: Checking tension conveyor belt

1. Read the safety instructions and observe them.
2. Visually check the tension of the conveyor belts.

See also
- 9.2.4 Adjusting the tension of the conveyor belts on page 144

10.2.15 Replacing the feed pressure filters

Every time the hydraulic oil is replaced, the feed pressure filters must also be replaced.

Executor: Operator

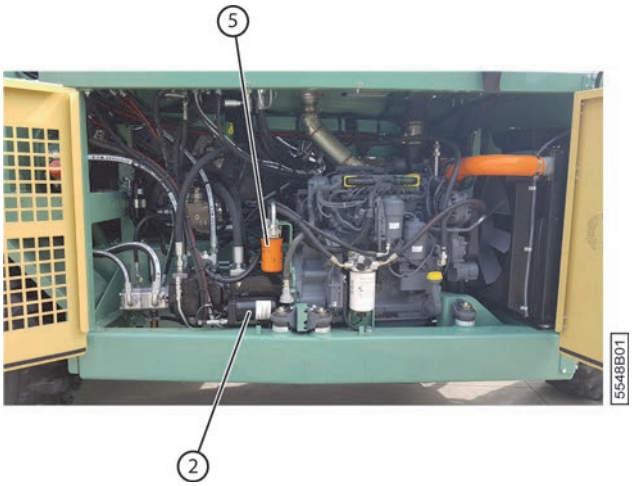


Fig. 110: Replacing the feed pressure filters

1. Switch OFF the machine safely.
2. Open the protective doors on the engine side.
3. Close the hydraulic tank by unscrewing the bolt of the suction filter approximately 3 cm until the end point can be felt.
4. Clean the area around the connection to the feed pressure filters (2) and (5).

5. Place a drain tray underneath the filter.
6. Unscrew the filter by hand. If necessary, use a strap wrench.
7. Remove the filter and the seal.
8. Clean the area where the filter must be installed.
9. Use grease to lubricate the seal of the new filter.
10. Install the new filter by hand. If necessary, use a strap wrench.
11. Repeat from step 5 for the other filter.
12. Fully screw in the bolt of the suction filter to enable oil to be sucked from the hydraulic tank.
13. Bleed the hydraulic system and check for leaks.

10.2.16 Isolating the hydraulic tank

If the hydraulic component is lower than the hydraulic tank, you must isolate the hydraulic tank by closing the strainer valve.

Otherwise the entire contents of the tank will drain away!

For example: In the case of hydraulic valves that are located higher than the hydraulic tank, you do not have to close the strainer valve.

Executor: Operator

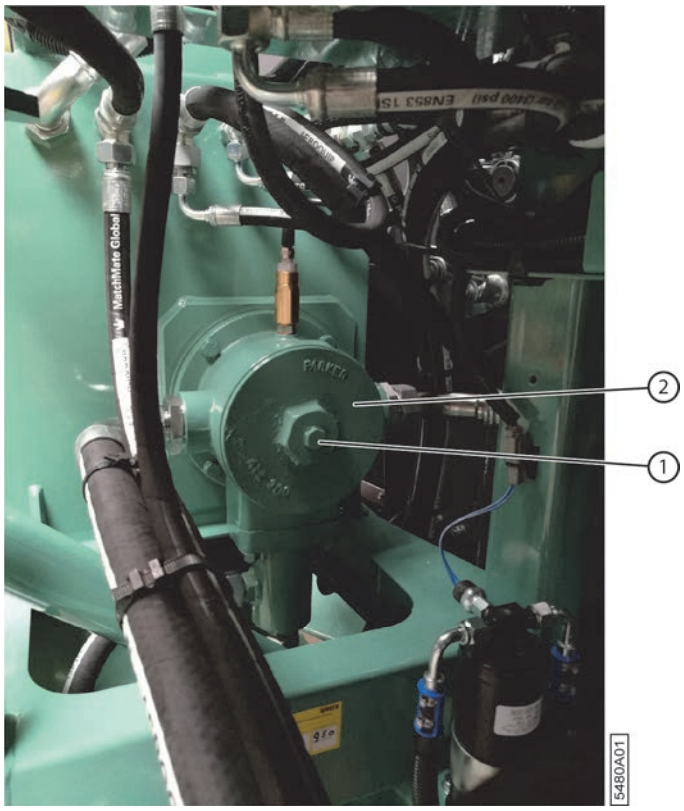


Fig. 111: Suction filter hydraulic tank

1. Switch OFF the machine safely.
2. Open the protective doors on the engine side.
3. Unscrew the bolt (1) of the suction filter (2) approximately 3 cm until the end point can be felt.

See also

- 2.2.24 The hydraulic tank on page 41

10.2.17 Checking the air filter

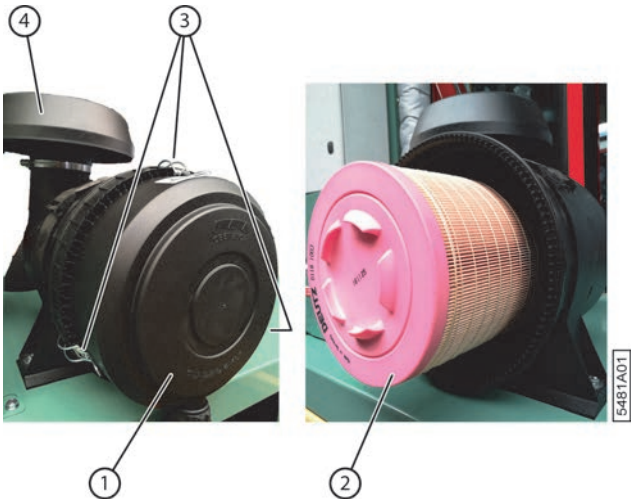


Fig. 112: Checking the air filter

Executor: Operator

1. Switch OFF the machine safely.
2. Unlock the 3 clips (3) that secure the cover (1) of the air filter, and remove the cover (1).
3. Carefully pull the entire filter element (2) out of the housing.
4. Open the inner filter (safety filter) of the filter element.
5. Check whether the inner filter is dusty. If the inner filter is dusty, then the outer filter is defective, and both the inner and the outer filters must be immediately replaced.
6. Place the entire filter element back into the housing.
7. Correctly refit the cover, and secure it using the 3 clips.

See also

- 2.2.26 The air filter on page 42

10.2.18 Cleaning the air filter

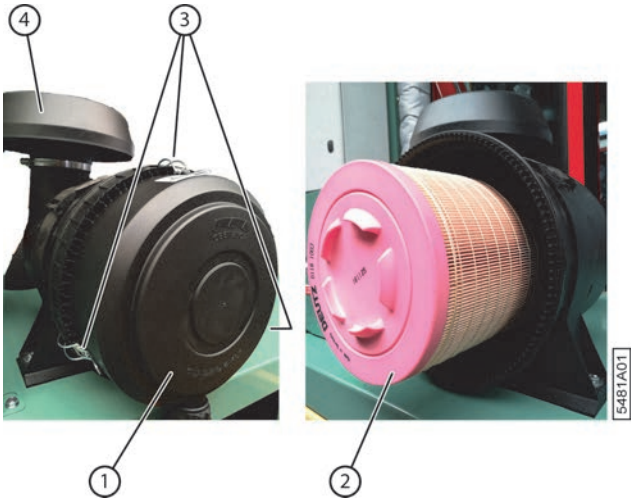


Fig. 113: Cleaning the air filter

CAUTION
You must be extremely careful when performing work on the inlet system. Close off the inlets!

Executor: Operator

1. Switch OFF the machine safely.
2. Unlock the 3 clips (3) and remove the cover (1) of the air filter.
3. Carefully pull the filter element (2) out of the housing.
   Ensure that dust from the filter does not enter the housing, and ensure that the filter element is not damaged.
4. Use dry compressed air (maximum 5 bar) to clean the filter element from the inside outwards.
   If the filter element is very dirty, replace it.
5. Place the cleaned filter element back into the housing.
6. Correctly refit the cover, and secure it using the 3 clips.

See also
- 2.2.26 The air filter on page 42

10.2.19 Replacing the safety filter of the air filter

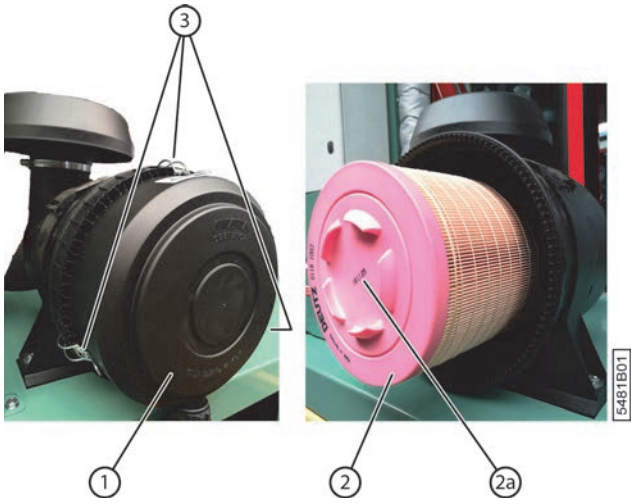


Fig. 114: Replacing the safety filter

CAUTION
You must be extremely careful when performing work on the inlet system. Close off the inlet!

Executor: Operator

1. Switch OFF the machine safely.
2. Unlock the 3 clips (3) and remove the cover (1) of the air filter.
3. Carefully pull the safety filter (2a) out of the air filter (2).
   Dust on the safety filter indicates that the air filter is defective, thus the air filter must also be replaced. You must never clean the safety filter!
4. Place a new safety filter back into the air filter.
5. Correctly refit the cover, and secure it using the 3 clips.

10.2.20 Replacing the air filter

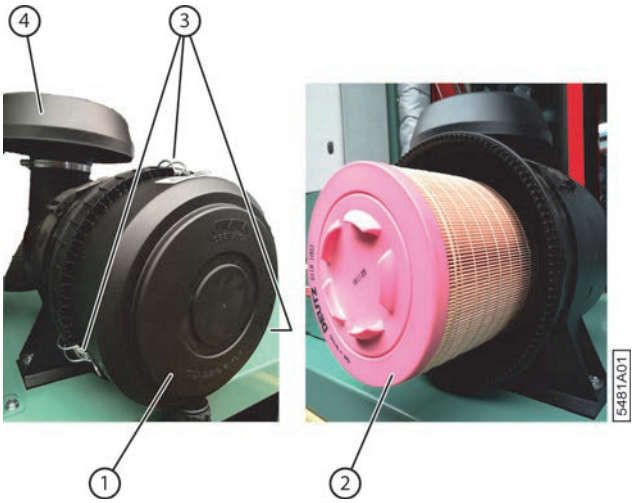


Fig. 115: Replacing the air filter

CAUTION
You must be extremely careful when performing work on the inlet system. Close off the inlets!

Executor: Operator

1. Switch OFF the machine safely.
2. Unlock the 3 clips (3) and remove the cover (1) of the air filter.
3. Carefully pull the filter element (2) out of the housing.
   Ensure that dust from the filter does not enter the housing.
4. Place a new filter element into the housing.
5. Correctly refit the cover, and secure it using the 3 clips.

See also
- 2.2.26 The air filter on page 42

10.2.21 Cleaning the engine radiators

As is the case for all liquid-cooled engines, the cooling capacity is determined by the cleanliness of the radiator. A dirty radiator has a lower cooling capacity

Fig. 116: Cleaning the engine radiators

Executor: Operator

1. Switch OFF the machine safely.
2. Open the protective door (1).
3. Use compressed air to clean the radiators (2) and (3).
4. Close the protective door.

10.2.22 Cleaning the radiators for the airco and the hydraulic oil

The fan for the hydraulic cooler and airco runs every 3 minutes for 30 seconds in the opposite direction in order to remove as much dust as possible from the coolers. In addition, you must also clean the radiators every day. If you do not clean the radiator every day, then dust particles will stick to the radiator as a result of cooling down and condensation. This will decrease the efficiency of the radiator and airco. This can heat up the oil and cause leaks.

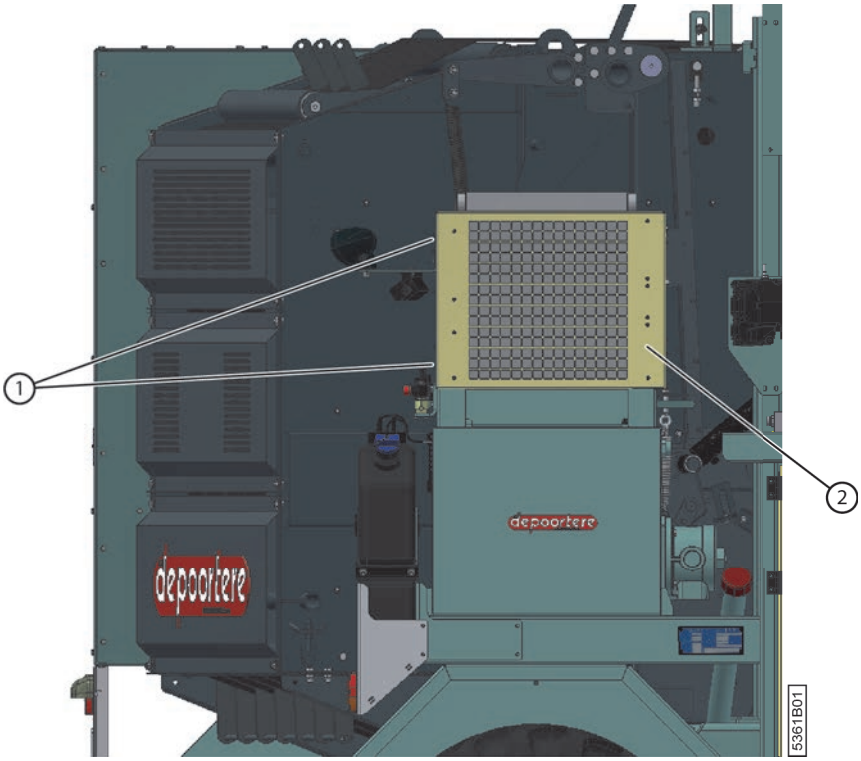


Fig. 117: Cleaning the radiators for the airco and the hydraulic oil

Executor: Operator

1. Switch OFF the machine safely.
2. Remove the 2 bolts (1) on the side, and swing the protective grill (2) open.
3. Use compressed air to clean the radiator for the airco and the radiator for the hydraulic oil.
4. Close the protective grill and secure it using the 2 bolts.

10.2.23 Cleaning the cabin

Executor: operator

1. Read the safety instructions and observe them.
2. Clean the steps of the ladder and the floor of the cabin.
3. Remove all items (tools, chains, hooks, etc.) from the cabin.
4. Place the tool in the tool cabinet provided for this purpose.
5. Remove mud and dust.
6. Clean the driver's seat.

See also

- 2.2.36 The tool cabinet on page 52

10.2.24 Checking the tyre pressure of the front wheel

The optimal tyre pressure depends on the surface. The tyre pressure on the front wheel must prevent shocks that affect the height of the pick-up.

Executor: operator

1. Switch OFF the machine safely.
2. Check the tyre pressure when the machine is cold.

Tyre	Pressure (bar)
Front wheel	2.5 - 3 bar

3. Adapt the pressure according to the type of surface. If the front wheel feels every shock, you must decrease the tyre pressure. If the pressure is too low, pump up the tyre via the valve.

WARNING
When pumping up the tyres, keep far enough away and keep bystanders at a safe distance. If the pressure is too high, the tyre can burst or explode. Keep oil and grease away from the tyres.

See also
- 2.2.15 The tyres on page 36

10.2.25 Checking the tyre pressure

The 3 tyres are the same type: Michelin 340/80 R18 143A8/143B IND TL XMCL. The optimal tyre pressure depends on the weight that each tyre is subjected to, and is thus different for the 3 tyres.

Executor: Operator

1. Switch OFF the machine safely.
2. Check the tyre pressure when the machine is cold.

Position of tyre	Type of tyre	Pressure (bar).
At the front	Michelin XMCL 340	3.6
	Michelin XMCL 340	3.6
At the rear right	Michelin XMCL 340	2.5
	Michelin XMCL 340	2.5
At the rear left	Michelin XMCL 340	2.8
	Michelin XMCL 340	2.8

3. If the pressure is too low, pump up the tyre via the valve to the pressure stated in the table.

WARNING
When pumping up the tyres, keep far enough away and keep bystanders at a safe distance. If the pressure is too high, the tyre can burst or explode. Keep oil and grease away from the tyres.

See also
- 2.2.15 The tyres on page 36

10.2.26 Tightening the wheel nuts

When first used and after replacement

Executor: Maintenance technician

1. Use wheel chocks to prevent the machine from rolling away.
2. Use a torque wrench to tighten the dry wheel nuts.

Position of tyres	Tightening torque (Nm)
Front	550 Nm

Position of tyres	Tightening torque (Nm)
Rear	550 Nm

3. Retighten the wheel nuts after 1 hour or after 25 kilometres.
   Do this when first used and after replacement of a wheel.

10.2.27 Checking the operation of the brakes

Executor: Operator

1. Activate the parking brake.
2. Place the machine in Road mode.
3. Perform one of the following actions:
   - Joystick driving mode: Slowly move the joystick forwards.
   - Pedal driving mode: Slowly press the pedal.
4. If the machine remains stationary, the brakes are OK. If the machine moves forwards, the brakes must be replaced. Contact your distributor.

10.2.28 Checking the teeth of the pick-up drum

Frequent visual checking of the teeth can prevent damage to the entire pick-up drum. If a tooth is deformed or exhibits signs of excessive wear, the tooth can get stuck in the drum when the pick-up drum rotates, and damage the entire pick-up drum.

Executor: Operator

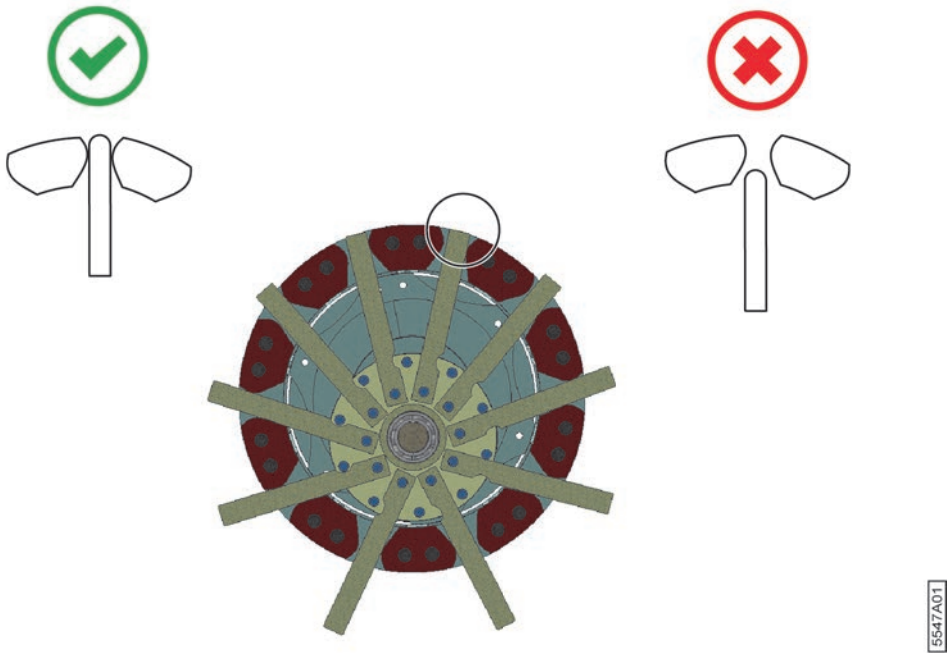


Fig. 118: The teeth of the pick-up

1. Switch OFF the machine safely.
2. In the uppermost position of the pick-up drum, check that the teeth protrude enough.
3. Check the play in the teeth that fully protrude.
4. Check the teeth for deformation.

See also
- 10.3.11 Replacing the tooth of the pick-up drum (disk type) on page 203
- 10.3.12 Replacing the tooth of the pick-up drum (type iron u-profile) on page 204

10.2.29 Checking the play in the front wheel

Perform this procedure at the same time as lubricating the front wheel.

Executor: Operator

1. Switch OFF the machine safely.
2. Move the front wheel back and forth.

   If the play is excessive, the guide bushes must be replaced.

10.2.30 Checking the rubber on the drive rollers

Damage to or the presence of rubber on the drive rollers can cause the conveyor belts to slip.

Executor: Operator

1. Switch OFF the machine safely.
2. Check the rubber on the drive rollers.
3. If the rubber is no longer intact, request the maintenance to remove the drive roller and send it to Depoortere NV.

10.2.31 Checking guides and guiding arcs for wear

Damage to the guides can obstruct the flax and cause a blockage.

Executor: Operator

1. Switch OFF the machine safely.
2. Check that indentations are not present in the guides and that they are not damaged.

10.2.32 Checking the level of AdBLue

1. Go to the Field mode or Road mode.
2. The level of AdBlue is visually displayed.

See also
- 2.2.34 The AdBlue tank on page 50
- 10.2.33 Topping up the AdBlue tank on page 174

10.2.33 Topping up the AdBlue tank

CAUTION
Carefully read the Safety Information Sheet about AdBlue in the annexes.

Every time that refuelling takes place, the AdBlue tank must also be topped up. The AdBlue tank does not have a level indicator. Therefore, be careful when filling the tank.

Executor: Operator

Required: AdBlue

1. Switch OFF the machine safely.
2. Open the filler cap of the AdBlue tank.
3. Fill the tank, preferably using a filling pistol that stops automatically. If you use a manual filling pistol, constantly check the level audibly and visually.

ENVIRONMENT
Spilled liquid must be removed in accordance with the regulations for the liquid and in accordance with the current local statutory regulations.

See also
- 2.2.34 The AdBlue tank on page 50
- 10.2.32 Checking the level of AdBLue on page 174

10.2.34 Checking level of the windscreen washer liquid.

CAUTION
Carefully read the Safety Information Sheet about windscreen washer liquid in the annexes.

Fig. 119: Windscreen washer reservoir

Executor: Operator

1. Switch OFF the machine safely.
2. Check the level of the windscreen washer liquid in the reservoir (1).
3. If necessary, top up the level.

10.2.35 Check the condition and the alignment of the conveyor belts

This task must be performed from the cabin by the driver, without other persons in the vicinity of the machine.

1. Allow the conveyor belts to rotate.
2. Check the attachments on the conveyor belts.
   Ensure that all attachments are perpendicular. Where attachments are missing, new attachments must be fitted.
3. Check the alignment of the conveyor belts.

See also

- 9.2.4 Adjusting the tension of the conveyor belts on page 144

10.2.36 Checking the air filter in the cabin

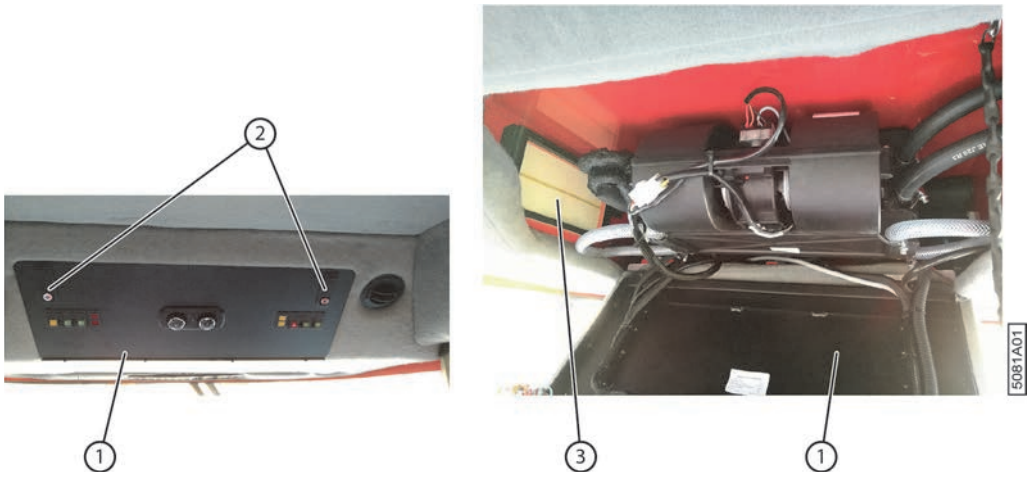


Fig. 120: Air filter in the roof of the cabin

1. Unlock the locks of the levers (2) and press the levers to open the control screen (1).
2. Check that the air filter (3) is clean.
3. If the air filter is dirty, clean the air filter.

See also

- 10.2.37 Cleaning the air filter in the cabin on page 177

10.2.37 Cleaning the air filter in the cabin

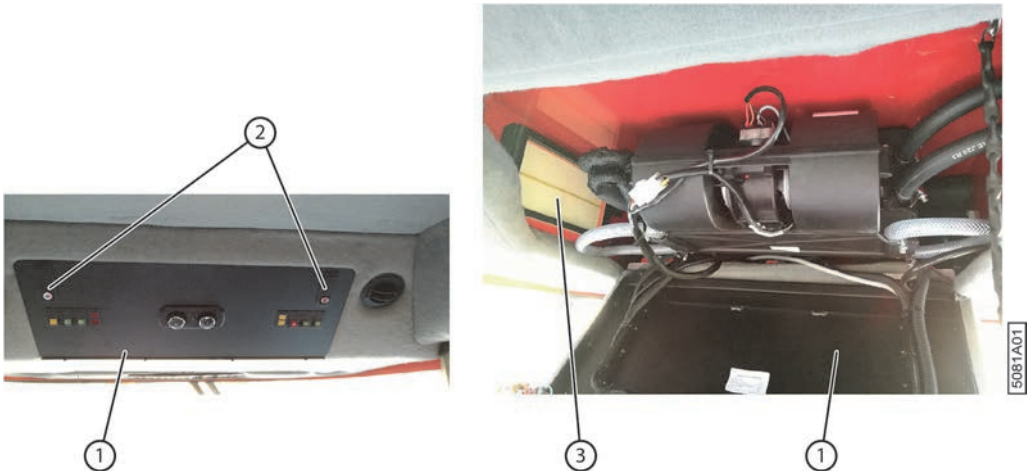


Fig. 121: Air filter in the roof of the cabin

1. Unlock the locks of the levers (2) and press the levers to open the control screen (1).
2. Remove the air filter (3).
3. Use compressed air to clean the air filter at a suitable location.
4. Reassemble in reverse order.

See also

- 10.2.36 Checking the air filter in the cabin on page 176

10.2.38 Checking te level of the hydraulic oil

Executor: Operator

1. Switch OFF the machine safely.
2. Check the level of the hydraulic oil via the level meter (1) mounted on the hydraulic tank.
3. The level must be between the lowermost red line and the uppermost blue line.

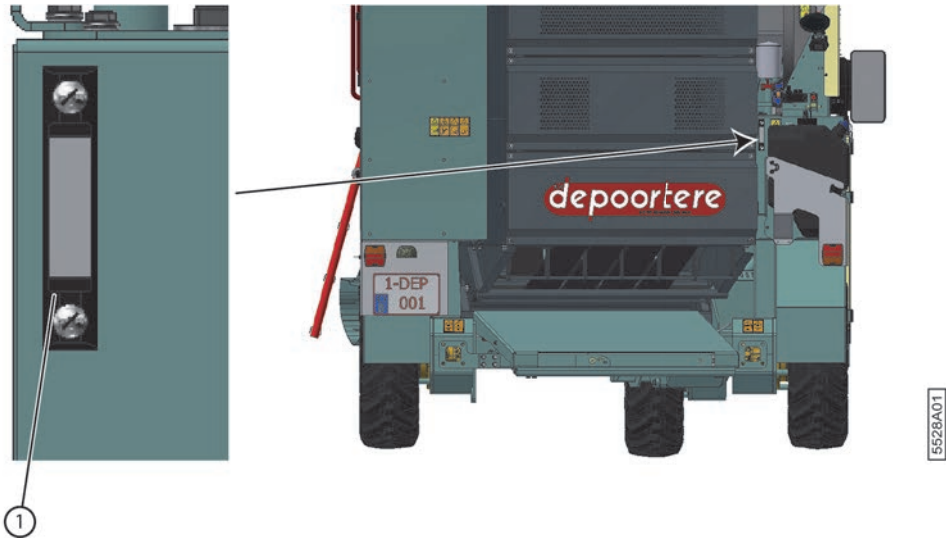


Fig. 122: Hydraulic oil level

10.2.39 Analysing the hydraulic oil

Instead of changing the oil, you can analyse the oil in order to guarantee the optimal operation of the hydraulic system.

Required equipment:

- 1 completely clean glass recipient or bottle with minimum capacity of 0.5 litre

Executor: qualified technician

1. Read the safety instructions and observe them.
2. Ensure that the hydraulic oil is still hot, so that it is more runny.

   CAUTION
   Risk of burns from hot oil. Ensure that the temperature is not too high, use appropriate personal protection equipment and perform work with care.

3. Clean the area around the coupling of the hydraulic pipe where you collect the oil.
4. Disconnect the hydraulic pipe.
5. Collect 0.5 litre in the recipient or bottle.
6. Reconnect the hydraulic pipe.
7. After several hours, check the condition of the oil.
   - Is the oil turbid?
   - Has the oil thickened?
   - Are there small copper particles and/or rubber particles at the bottom of the recipient?
   - Is the oil milky due to condensation in the tank?
   - As a result of heating, does the oil have a smell that is different from new oil?
8. If the answer is “yes" to 1 or more of the above questions, replace the oil.

   TIP
   In the case of doubt, allow the oil to be checked by a hydraulic systems specialist.

10.2.40 Replacing the hydraulic oil

If, due to a technical problem, the oil has overheated, then it is recommended to replace all of the hydraulic oil, because the quality of the oil is no longer optimal. If the hydraulic pumps have encountered problems, and copper particules are present in the oil, then the oil must be filtered.

When replacing the oil, all filters and the aerator must also be replaced.

Required:

- At least 145 litres of TOTAL EQUIVIS ZS 68
- Aerator

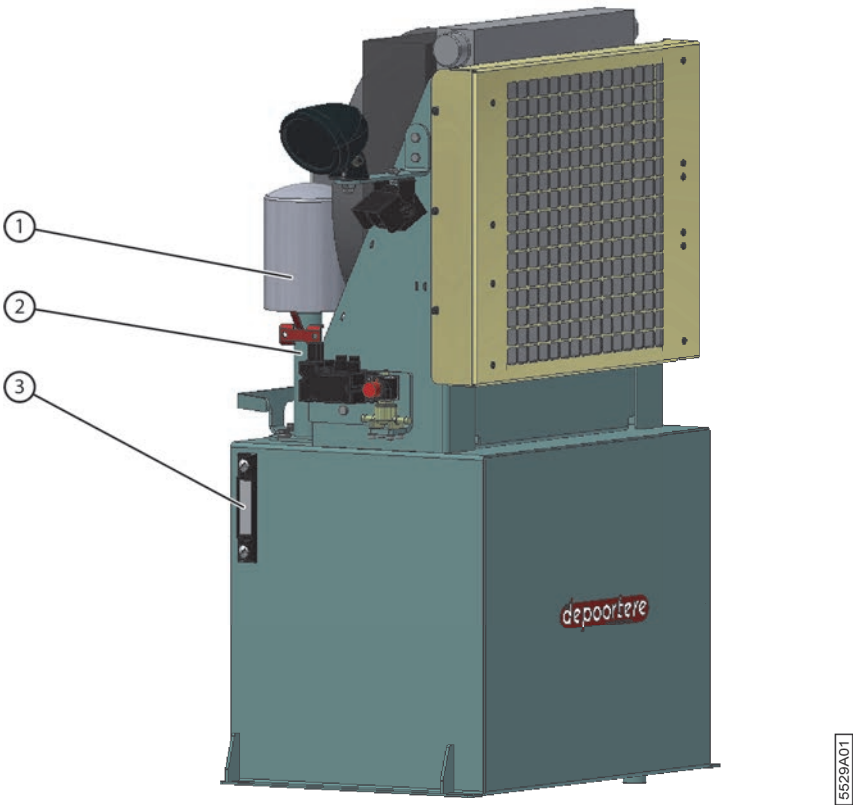


Fig. 123: Replacing the hydraulic oil

Executor: Maintenance technician

1. Switch OFF the machine safely.
2. Drain the hydraulic tank.
3. Unscrew the aerator (1) from the tank in order to provide access to the filler hole (2).
4. Fill the tank with hydraulic oil up to the blue line on the level meter (3).

   It can take a while before the level meter indicates the actual level. Therefore, fill the last part of the tank gradually in stages, and allow the enough time for the oil to adapt, via the level meter, to the level in the tank.
5. Check the level of hydraulic oil again, and top up as required.
6. Screw a new aerator onto the filler opening.
7. Start the machine 5 times in quick succession, without the engine reaching its maximum speed.

   This action removes any air remaining in the pumps and the pipes.

See also

- 2.2.24 The hydraulic tank on page 41

10.2.41 Replacing the aerator of the hydraulic tank

The locking piece (2) prevents the aerator (1) from inadvertently becoming detached from the air inlet (4).

Fig. 124: Aerator of the hydraulic tank

1. Remove the fasteners (3).
2. Remove the locking piece (2).
3. Unscrew the aerator (1) anti-clockwise.
4. Screw a new aerator clockwise onto the air inlet (4).
5. Refit the locking piece to lock the aerator.

10.2.42 Alternative lubricants, oils and greases

Original		Alternative	
Brand	**Type**	**Brand**	**Type**
TOTAL	EQUIVIS ZS 68	SHELL	Tellus S2 V68
		FUCHS	Renolin B HVI 68
		ENGEN	TQH 10/68
		CASTROL	Hyspin AWH 68
		CALTEX	Rando HDZ 68
		MOBIL	DTE 10 excel 68
		BP	Energol SHF HV 68

10.2.43 Checking the hydraulic system for leaks

CAUTION
Carefully read the Safety Information Sheet about hydraulic oil.

Executor: qualified technician

1. Read the safety instructions and observe them.
2. If the machine is not used for a prolonged period, check whether oil is present underneath the machine.
3. Check all hydraulic components for leaks.

10.2.44 Checking the charging circuit of the machine

It is prohibited to work with the machine when the battery is not correctly charged.

1. Switch ON the battery switch.
2. Start the machine.
3. Check that the charging lamp is lit.
   - If it is lit, the charging lamp is OK.
   - If it is not lit, the charging lap is not OK. Replace the lamp with a 3 Watt lamp.
4. Check that the charging lamp extinguishes after the engine has been started.

- If this lamp is extinguished, the charging circuit is OK.
- If this lamp is not extinguished, the charging circuit is not OK. Consult the technician.

10.2.45 Checking the battery

1. Use a multimeter to directly check the voltage of the battery.

   You can also read the value of the battery voltage on the control screen.
2. Note the voltage.
3. Start the machine.
4. Allow the machine to run for at least 15 minutes.
5. Note the voltage again. This voltage must be higher than the voltage noted in step 2.
   - If the measured voltage is lower, check the charging circuit. See 10.2.44 Checking the charging circuit of the machine on page 180. If after checking, the charging circuit is OK, the battery or the cabling can be defective.
   - If the measured voltage is higher, the battery is OK.

10.2.46 Maintaining the battery

CAUTION

When opening the filler caps, hazardous vapours can escape. Provide a well-ventilated room.

If the liquid in the battery comes into contact with the skin and/or if it is swallowed, this can cause serious burns. If the acid comes into contact with clothing, it can burn through clothing.

1. Always disconnect the negative (black) cable first, and then the positive (red) cable.
2. Use a wire brush or sandpaper to clean the poles of the battery.
3. First reconnect the positive (red) cable, then the negative (black) cable.
4. Check that both cables are secure.
5. Open the battery filler caps.
6. Check that the liquid is 2 cm above the electrodes.
7. If necessary, top up with demineralised water.
8. Refit the battery filler caps.

10.2.47 Checking electrical system

1. Checking the operation of the emergency stop button
2. Check that all functions work.

   In the event of a fault message, first look on the control screen for the cause, before using the machine in a field or driving on public roads.

10.2.48 Checking the play in the crankshaft

Executor: Maintenance technician

1. Switch OFF the machine safely.
2. Position yourself underneath the machine and move the compactor up and down.
3. Check that there is no play.

If the play is excessive, the bearings have to be replaced.

10.2.49 Checking the chain tension

Executor: Maintenance technician

1. Read the safety instructions and observe them.
2. Open the pressing chamber.
3. Lock the pressing chamber.
4. Switch OFF the machine safely.
5. Open the front rope cabinet.
6. Undo the 2 bolts and swing open the protective panel.
7. Undo the 2 bolts (5) and (6) and swing open the protective panel.

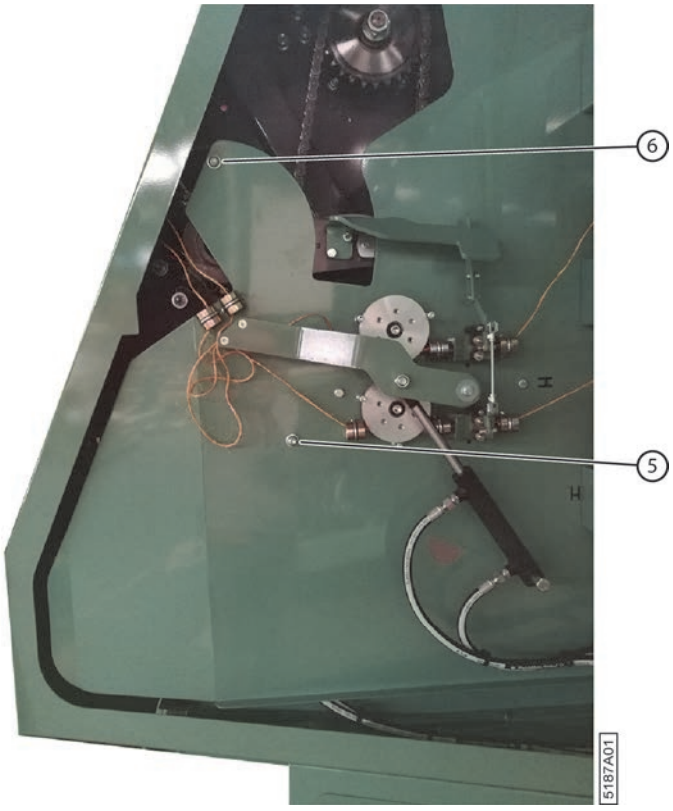


Fig. 125: Protective panel rope cabinet

8. Check that the chain tension (T) is between 5 and 10 mm.

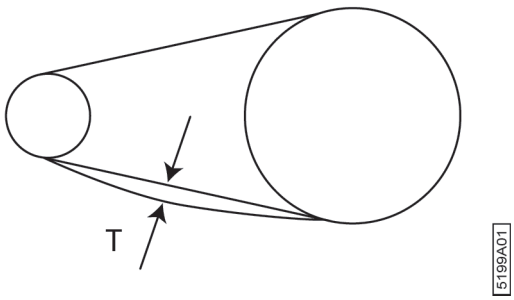


Fig. 126: Chain tension

9. If necessary, adjust the chain tension via the automatic and/or manual chain tensioners.

10. Close the protective panel and secure it using the 2 bolts.
11. Close the cabinet door.

See also

- 9.4.4 Adjusting the automatic chain tensioner on page 149

10.2.50 Replacing the hydraulic suction filter

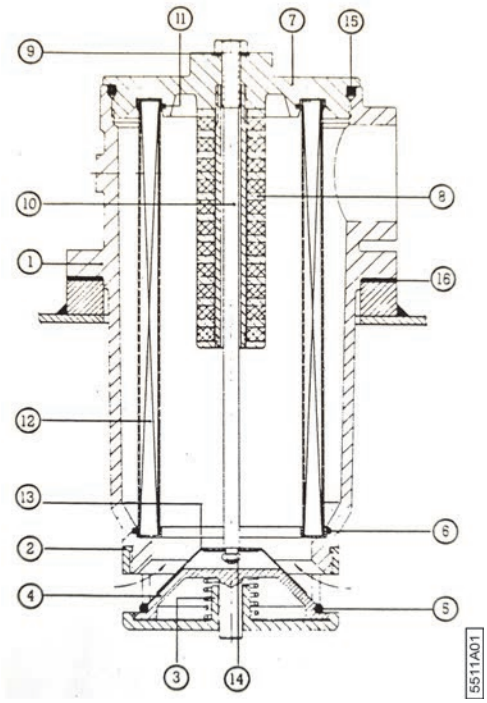
It is extremely important to regularly replace the hydraulic suction filter. Make sure that you replace the hydraulic suction filter before each flax season.

CAUTION
Dirt in the hydraulic circuit can damage the hydraulic components.

Only use the prescribed suction filter from Depoortere NV with a density of 10 µ.

Required spare parts:

- Arlon filter 10 µ. Reference Depoortere NV: 1210100000



Nr.	Part	Reference Depoortere NV:
1	Filter housing	
2	Valve housing	
3	Spring	
4	Valve	
5	O-ring (99.1 x 5.7)	
6	O-ring (129.5 x 3)	
7	Cover	
8	Magnetic core	
9	Seal	
10	Bolt	
11	O-ring (84.5 x 3)	

Nr.	Part	Reference Depoortere NV:
12	Filter element 10 µ	1210100000
13	Valve	
14	Nut	
15	O-ring (154.3 x 5.7)	0234515460 This is the reference of the O-ring that is slightly thicker than the original, and that seals more optimally after the disassembly.
16	Flat seal	

Fig. 127: Cross-section filter housing hydraulic tank

CAUTION
Never start the engine when the bolt (10) is unscrewed or when the hydraulic oil filter is removed! This would cause some damage to the hydraulic pumps or even cause irretrievable damage to them.

Executor: Maintenance technician

1. Read the safety instructions and observe them.
2. Switch off the machine safely.
3. Loosen the bolt (10) using spanner S=19.
4. Unscrew the bolt further by hand until the bolt is 5 cm out of the filter housing.
   The end point can be felt.
5. This ensures that the valve (4) seals the opening so that oil does not enter the filter housing.
6. Unscrew the cover (7) using spanner S=55 (supplied with the machine) and remove the cover.
7. Check that dirt is not present in the filter housing. Clean the filter housing.

   NOTE
   Carefully look for signs of dirt. Shreds of rubber indicate that a seal has been damaged, and metal particles indicate excessive wear.

8. Unscrew the nut (14).
9. Disassemble the valve (13).
10. Disassemble the filter element (12).

    NOTE
    Carefully look for signs of dirt on the filter element. Shreds of rubber indicate that a seal has been damaged, and metal particles indicate excessive wear.

11. Clean the magnetic core (8).
12. Assemble the new filter element.
    If necessary, install a new O-ring Ø 154.00 x 6.00 SHORE 70. Reference Depoortere NV: 0234515460 This O-ring is slightly thicker and seals better after the disassembly. You can also use the existing O-ring. If this is done, at the end of this procedure, check that the filter does not leak.
13. Install the valve (13).
14. Screw the cover (7) back on by hand and then tighten it using a spanner S=55.
15. Screw the bolt (10) back in and then tighten it.
16. Vent the suction filter by waiting at least 30 minutes.
    This allows air molecules in the oil to rise to the surface.

10.2.51 Testing the operation of the sensors

You can test the operation of the sensors by activating the sensor and checking whether a signal is received at the inputs. You can temporarily disable a number of sensors. Before disabling the sensor, it is recommended to test the operation of the sensor. It is recommended to reactivate the sensor as soon as possible!

The following sensors can be disabled via the control screen:

- Sensor that detects whenr the pressing chamber is open
- Sensor that detects when the pressing chamber is closed
- Sensor that detects when the balancing arm is low
- Sensor that detects when a rope-break is evident on rope 1
- Sensor that detects when a rope-break is evident on rope 2
- Sensor that detects the speed of the pressing chamber.
- Sensor that detects the driving speed.

See also

- 2.2.35 Overview of the sensors on page 51
- 11.2 Performing tests on page 221

10.2.52 Testing the rope-break sensors

To perform this test, 2 persons are required: the driver and a maintenance technician.

1. Switch OFF the engine, then switch ON the ignition.
2. Go to the menu via  .
3. Select  .
4. Select the **PWM OUTPUTS** page.
5. The maintenance technician opens the rope cabinet and rotates the break monitoring tools (= aluminium pulleys). The **Rope-break 1** and **Rope-break 2** inputs receive a value during correct operation.

See also

- 8.2.67 Disabling a sensor on page 130

10.2.53 Testing the pressure chamber sensors

With this test, you can test the **Cage Open**, **Cage Closed** and **Balancing arm low** sensors. The pressing chamber must be empty before the **Balancing arm low** sensor can be tested.

1. Place the machine in Field mode.
2. Select  .
3. Select the **DIGITAL INPUTS** page.
4. Press button 1 on the joystick to open the pressing chamber.
   The **Cage Open** input is assigned the value **ON** in the event of optimal operation.
5. Press button 2 on the joystick to close the pressing chamber.
   The **Cage Closed** input is assigned the value **ON** in the event of optimal operation. The **Balancing arm low** input is assigned the value **ON** in the event of optimal operation when the pressing chamber is empty.

See also
- 8.2.67 Disabling a sensor on page 130

10.2.54 Testing the speed sensors

This test enables you to test the operation of the speed sensors for the belts and for driving.

1. Place the machine in Field mode.
2. Select  .
3. Select the **PWM OUTPUTS** page.
4. Drive the machine forwards

   During optimal operation, the values beside **Driving Speed** and **Cage Speed** are not 0.

See also
- 8.2.67 Disabling a sensor on page 130

10.2.55 Checking the cutting of the knives

WARNING
This procedure must be performed by the operator and the maintenance technician. This procedure requires extremely precise monitoring of the steps and optimal communication between these 2 people. If the steps are not monitored extremely precisely, or miscommunication occurs, this can result in serious injury or even in death.

1. The operator sits in the cabin, the maintenance technician keeps a safe distance away from the machine.
2. The operator opens the pressing chamber.
3. The maintenance technician mechanical locks the pressing chamber.
4. The maintenance technician takes the ends of the ropes and pulls them towards himself, until he is outside the pressing chamber and then takes the ropes in his hands.
5. Opening or closing the needles of the binding system
   The ropes are clamped between the mushrooms and are inserted through the fingers of the needles to the knives.
6. The maintenance technician then tensions both ropes.
   The ropes must be easily cut.
7. If the knives do not cut properly, check and rectify the possible cause.
   - deformation of the rod
   - the knives are blunt
   - the position of the knives
8. The maintenance technician releases the ropes and unlocks the mechanical protection for the pressing chamber.
9. The maintenance technician keeps a safe distance away from the machine and within the field of vision of the operator.
10. The operator closes the pressing chamber.

10.2.56 Checking the rope guides for wear

Rope guides that are too worn no longer perform their function optimally, and can cause a rope break.

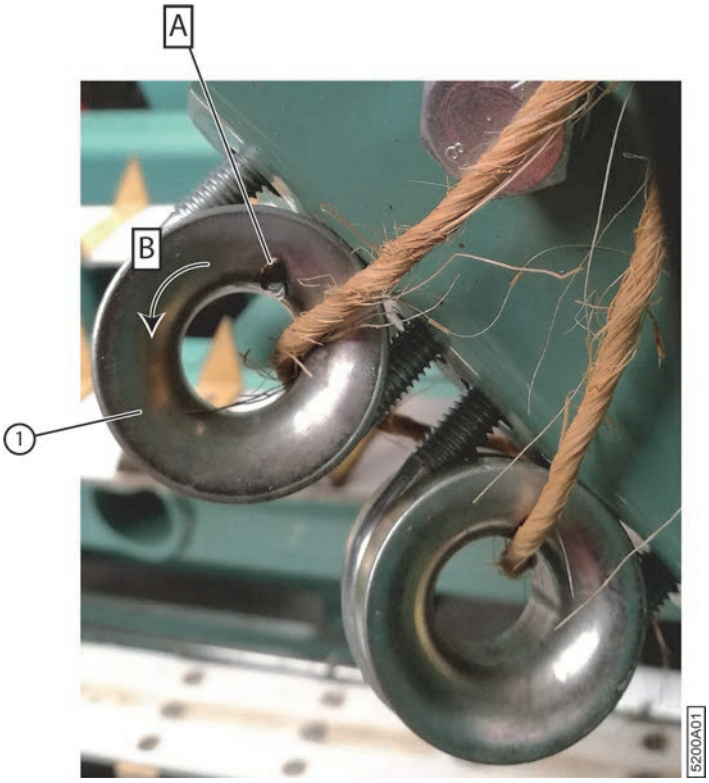


Fig. 128: Wear on a rope guide

Executor: operator

1. Read the safety instructions and observe them.
2. Switch OFF the machine safely.
3. Open the rope cabinet and check all rope guides from here for signs of wear (A).

   Follow the route of the ropes to ensure that you check all rope guides. In the event of excessive wear, proceed as follows:
4. Loosen the rope guide (1).
5. Turn (B) the rope guide so that the rope is guided at a new location.
6. Secure the rope guide.

10.2.57 Checking the binding rope system for deformation and wear

Deformed arms and worn fingers in the binding rope system can cause problems when cutting the ropes.

Executor: operator

1. Switch OFF the machine safely.
2. Check that the needles of the binding rope system are straight (not deformed).
3. Check that the fingers are not worn.

10.2.58 Checking the condition and the alignment of the pressing chamber belts

This task must be performed from the cabin by the operator, without other persons in the vicinity of the machine.

1. Allow the pressing chamber belts to rotate slowly.
2. Look through the rear window of the cabin and check the alignment of the pressing chamber belts.
3. Check that the belts are intact and do not exhibit indentations.
4. Check the belt links.

10.2.59 Replacing the dry filter

Work on the air conditioning may only be performed by qualified personnel from an approved company.

NOTE
After replacing the dry filter, you must add 25 ml of airco oil.

10.2.60 Maintaining the airco

Work on the air conditioning may only be performed by qualified personnel from an approved company.

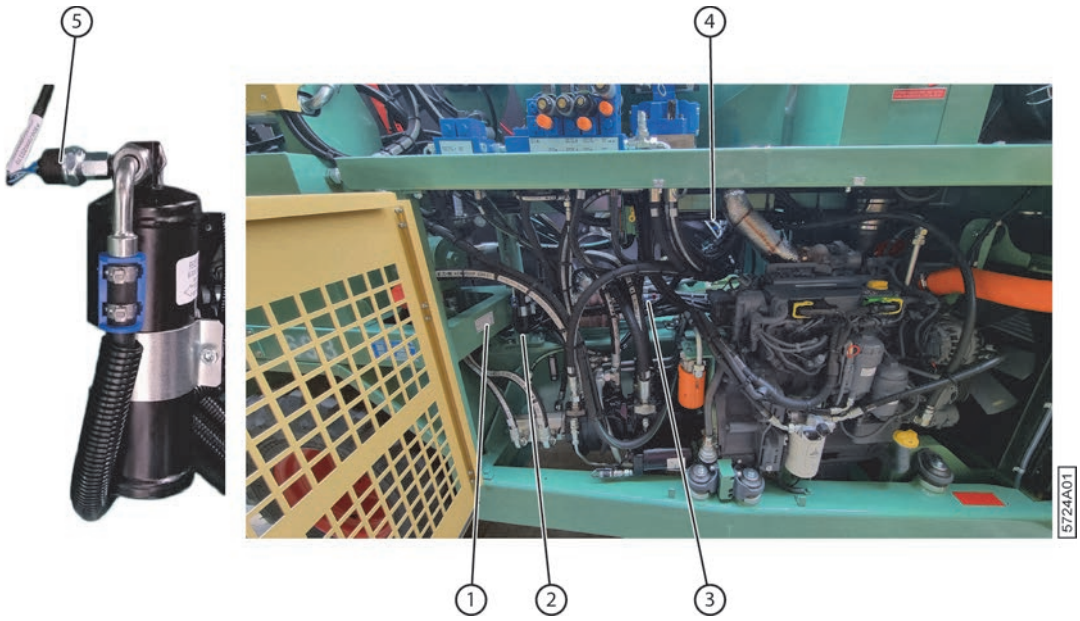


Fig. 129: Location of the airco parts

Nr.	Part
1	Information sticker
2	Dry filter
3	High-pressure connection point (red)
4	Low-pressure connection point (blue)
5	Switch

NOTE
For more information about the airco, consult the sticker that is affixed by the manufacturer.

Fig. 130: The sticker with information about the air conditioning

This information sticker states the quantity of oil, the quantity of gas, the type of gas, and the filling date.

You must replace the dry filter every 3 years. The dry filter consists of a membrane and granules for drying the gas. After 3 years, the granules are saturated and the dry filter must be replaced. After being exposed to repeated shocks, the membrane can become damaged, so that the dry filter has to be replaced prematurely.

When replacing the gas, you use the high-pressure connection point (red) and the low-pressure connection point (blue).

If the airco no longer operates, this can be due to the following:

- The switch is defective.
- The switch does not receive a signal.
- A leak has caused all of the gas in the circuit to escape.

10.2.61 Important points to note when lubricating

- ONLY use the recommended lubricating greases. Less well-known lubricating greases are often inferior in quality, and can shorten the service life of parts.
- Remove dirt from the grease nipples before lubricating.
- Carefully lubricate all grease points in accordance with the lubrication plan.
- Remove excess grease after lubricating.

10.2.62 The lubricating schedule

Frequency:

- h = work hours
- y = years

Executor: operator

Part	Frequency	Lubricant	Instruction
Front wheel	8 h	Multis EP 2	See 10.2.63 on page 189.
Front wheel - spindle	8 h	Multis EP 2	See 10.2.63 on page 189.
Central lubrication system	8 h	Multis EP 2	See 10.2.66 on page 191.
Chains	8 h	WD-40 Lubricant dry PTFE Reference number: 553 3394	See 10.2.67 on page 193.
Sprung front wheel	1 y	Multis EP 2	See 10.2.65 on page 190.

10.2.63 Lubricating the front wheel

Executor: operator

1. Switch OFF the machine safely.
2. Place the manual pump onto the lubricating nipple (1) and pump 5 times.
3. Remove the excess grease.
4. Use lubricating grease and a brush to lubricate the spindle (2).

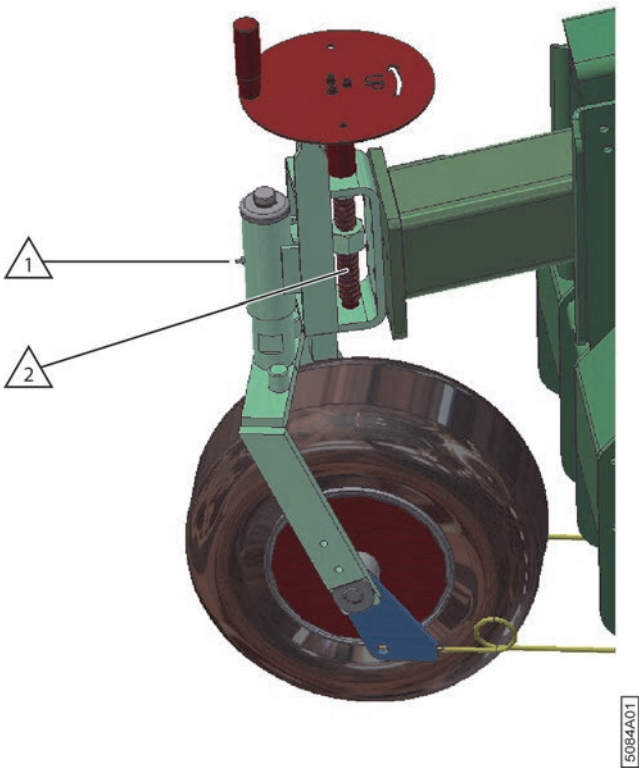


Fig. 131: Lubricating front wheel

10.2.64 Lubricating the front wheel

The front wheel is maintenance-free. It is lubricated for the service life of the Depoortere NV. The grease nipples are replaced by bolts.

Lubrication is only required if parts of the front wheel are replaced.

10.2.65 Lubricating the spring of the front wheel

NOTE
Lubricate the spring before the start of the season.

Executor: operator

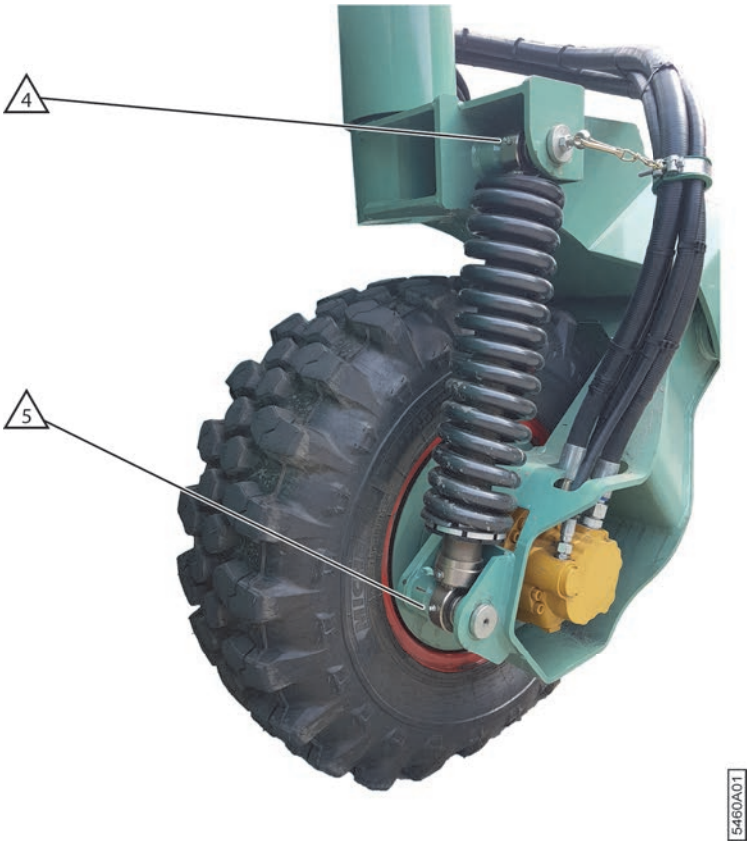


Fig. 132: Lubricating the spring of the front wheel

1. Switch OFF the machine safely.
2. Place the manual pump on the grease nipples and pump until the lubricating grease comes out.

10.2.66 Lubricating the pressing chamber

The pressing chamber is equipped with a central lubrication system. This system lubricates all required lubricating points of the pressing chamber. The chains must be lubricated separately.

NOTE
Lubricate the pressing chamber every morning before starting the work, and also lubricate the pressing chamber in the evening at the end of the season, before putting the machine into storage.

Required: manual grease pump that supplies 0.86 grams of grease per stroke.

Executor: operator

1. Read the safety instructions and the important points to note during lubrication and observe them.
2. Switch OFF the machine safely.
3. Open the front rope cabinet.
4. Open the inner door of the rope cabinet.
5. Place the manual pump on the grease nipples of the central lubrication system (3) and pump as follows:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
3x	5x	5x	3x	3x	3x	3x	5x	3x	3x	5x	3x	5x	5x	3x	3x	3x

WARNING

- If resistance is not encountered when lubricating the nipple, then the lubrication pipe is ruptured. Look for the cause and repair the pipe.
- If too much resistance is encountered when lubricating the nipple, then the lubrication pipe is blocked. Look for the cause and repair the pipe.

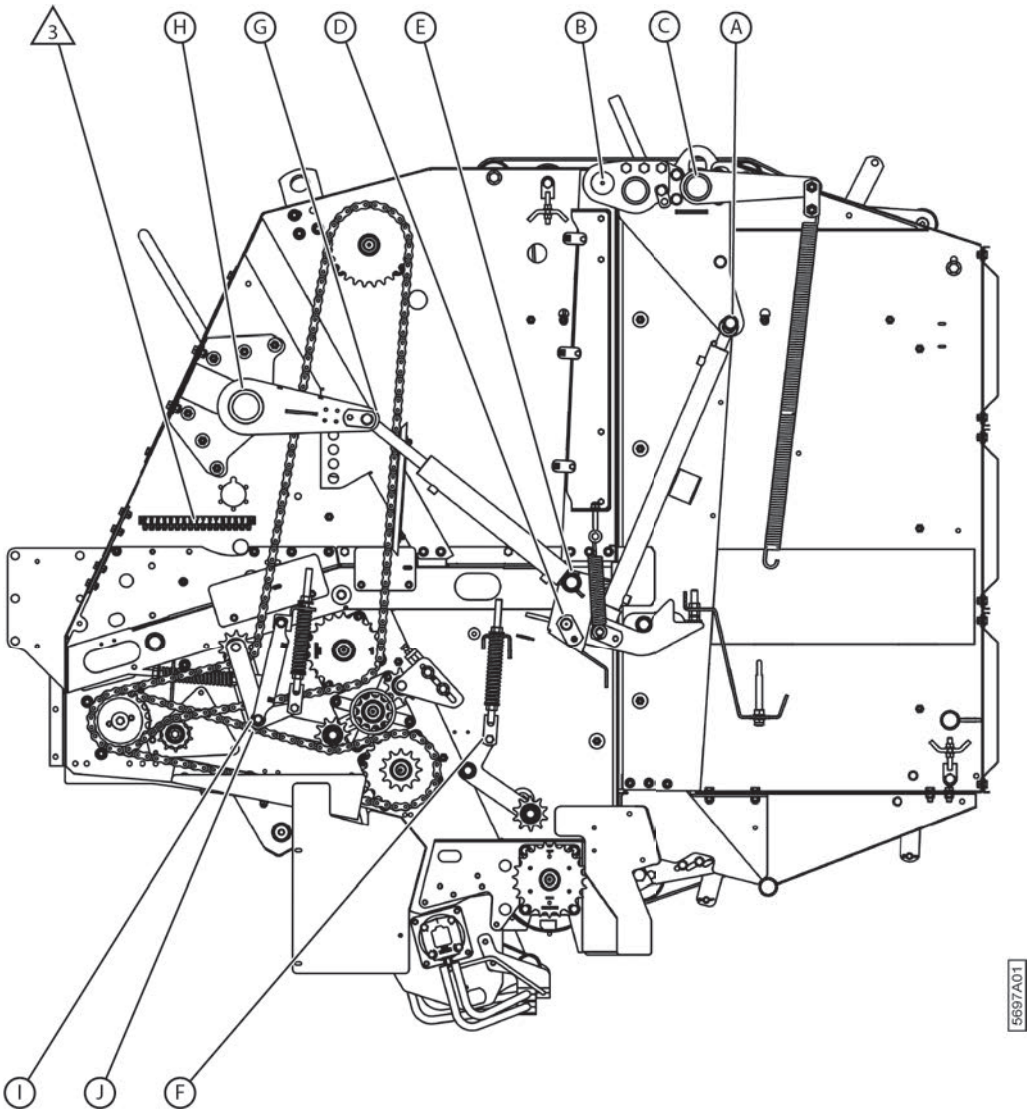


Fig. 133: Overview of the lubrication points on the left-hand side of the pressing chamber.

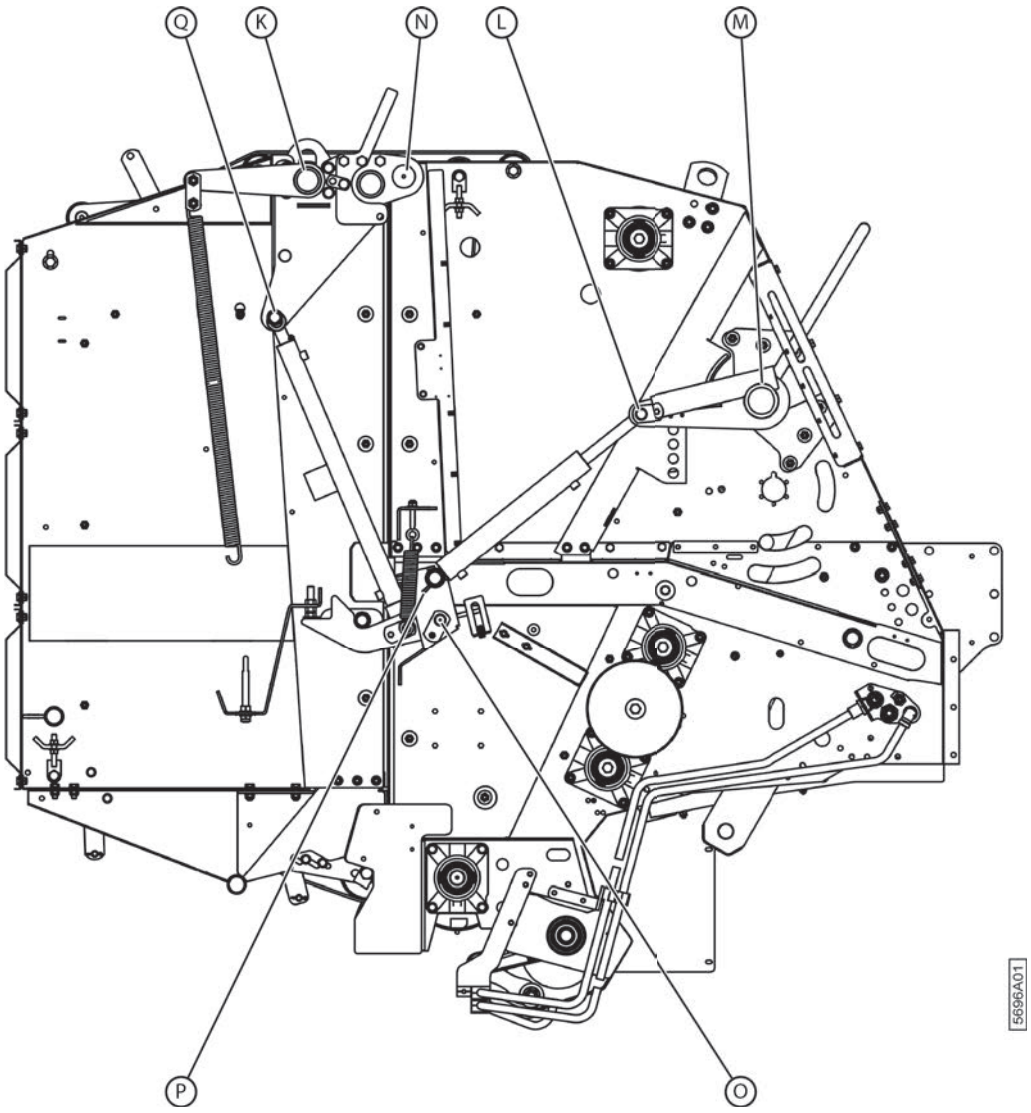


Fig. 134: Overview of the lubrication points on the right-hand side of the pressing chamber.

See also

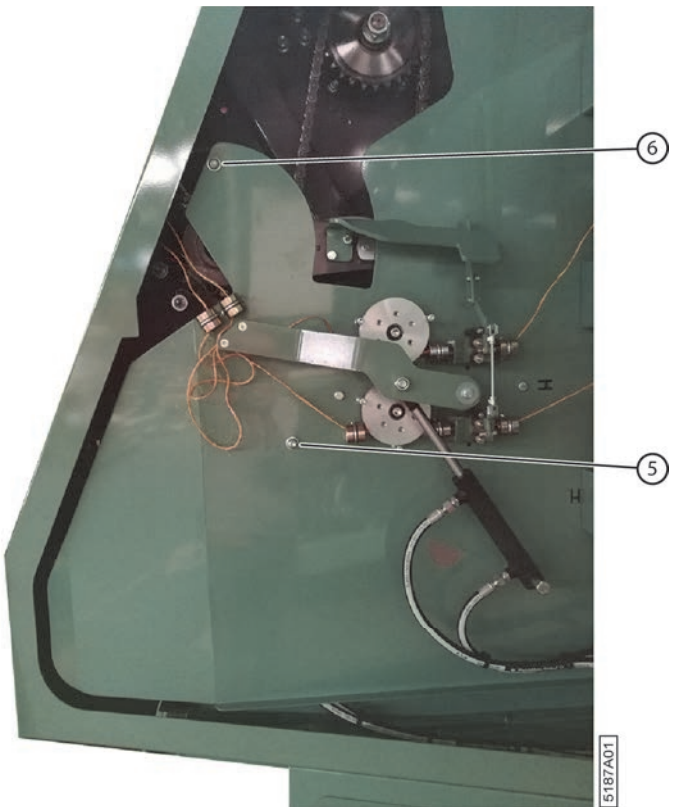
- 2.2.32 The pressing chamber on page 49
- 10.2.67 Lubricate the chains on page 193
- 10.2.67 Lubricate the chains on page 193

10.2.67 Lubricate the chains

Required: Dry PTFE spray (for example: WD-40 Lubricant dry PTFE with reference number: 553 3 394)

Executor: operator

1. Read the safety instructions and the important points to note during lubrication and observe them.
2. Switch OFF the machine safely.
3. Open the front rope cabinet.
4. Undo the 2 bolts (5) and (6), and open the protective planel.



5. Use dry PTFE spray to lubricate the chains.
6. Close the protective panel and tighten the bolts.
7. Open the front rope cabinet.

See also

- 10.2.66 Lubricating the pressing chamber on page 191
- 10.2.66 Lubricating the pressing chamber on page 191
- 10.3.14 Replacing the chains and sprocket wheels on page 207

10.3 Corrective maintenance

10.3.1 Towing the machine (with operational engine)

Tow the machine as little as possible. When towing the machine, position a lorry as close as possible to the machine.

CAUTION
The machine may only be towed at a maximum speed of 5 km/hour, and for NO LONGER THAN 3 minutes!

CAUTION
It is prohibited to tow the machine with a bale in the pressing chamber.

1. Raise the pick-up and lock the pick-up.
2. Close the pressing chamber.
3. On the Drive pump, use a 22 mm spanner to unscrew the 2 bolts (1) 3 turns anti-clockwise. Do not unscrew more than 3 turns, otherwise you will encounter leaks!

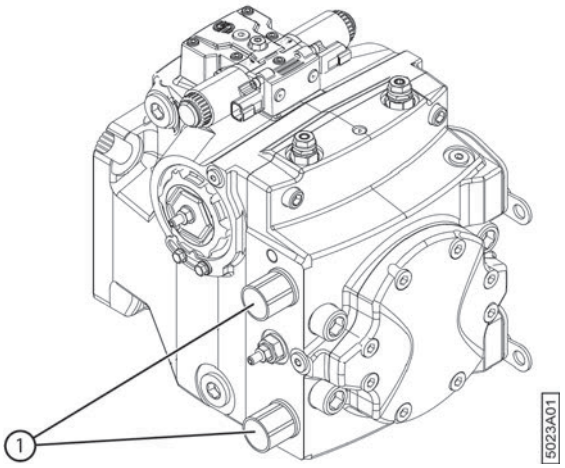


Fig. 135: Open the hydraulic circuit for the wheels

Ensure that the hydraulic circuit for the wheels is open during the towing of the machine.

4. Release the brakes for the rear wheels by releasing the parking brake.
5. Ensure that all protective panels are closed.
6. Connect a towing belt to the towing eye (8) at the front of the machine.

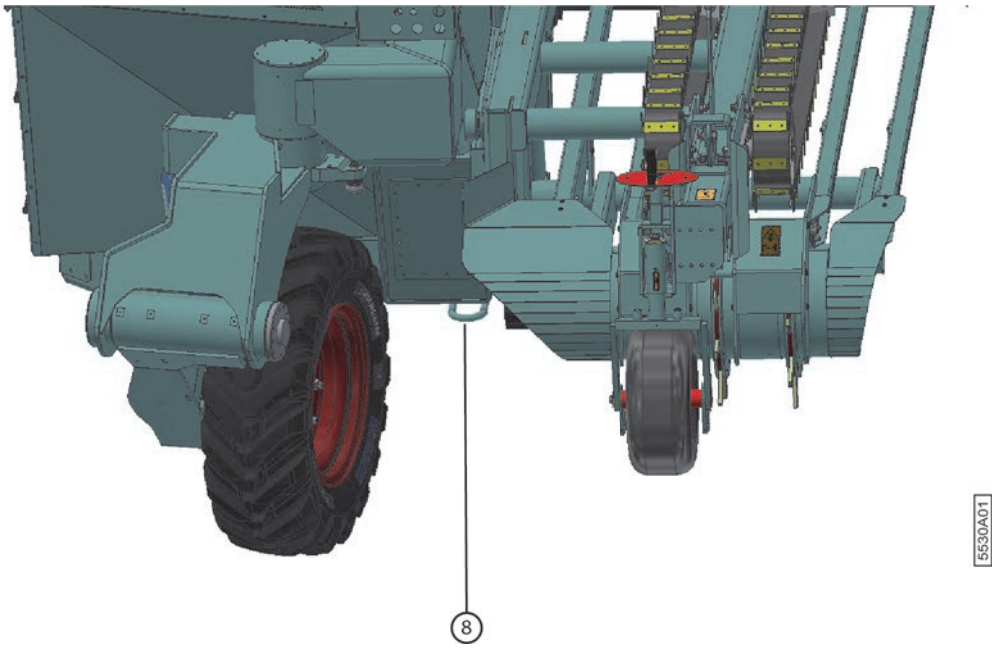


Fig. 136: Towing eye of the machine.

7. Connect the other end of the towing belt to the towing vehicle.
8. Tow the machine to the desired location. Move the front wheel of the machine in the towing direction,
9. After towing, tighten the bolts (1) using a 22 mm spanner to a torque of 70 Nm.

See also

- 8.1.4 The parking brake on page 97

10.3.2 Towing the machine (with defective engine)

If the machine has to be towed due to a defective engine, several preparations must be made to the rear wheels of the machine and the hydraulic circuit for the drive for the wheels. If these preparations are not performed, this can result in irreversible damage to the wheels and the hydraulic circuit.

Tow the machine as little as possible. When towing the machine, position a lorry as close as possible to the machine.

CAUTION
It is prohibited to tow the machine with a bale in the pressing chamber.

CAUTION
The machine may only be towed at a maximum speed of 5 km/hour, and for no longer than 3 minutes!

Required equipment: contact Depoortere NV for suitable tools for releasing the brake.

1. On the Drive pump, use a 22 mm spanner to unscrew the 2 bolts (1) 3 turns anti-clockwise. Do not unscrew more than 3 turns, otherwise you will encounter leaks!

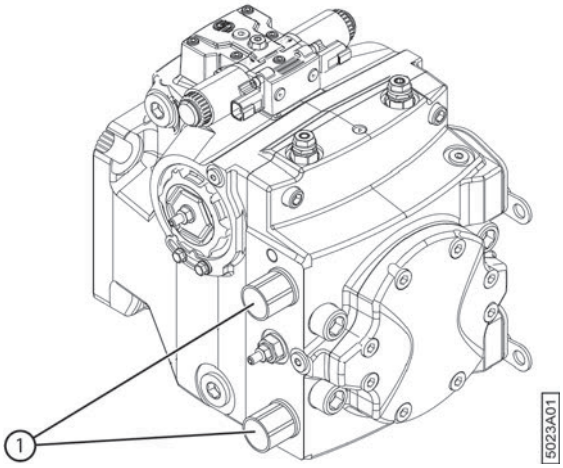


Fig. 137: Opening the hydraulic circuit for the wheels.

Ensure that the hydraulic circuit for the wheels is open during the towing of the machine.

2. Remove the rubber stop (4) and release the metal stop from the centre of the rear wheel (3).

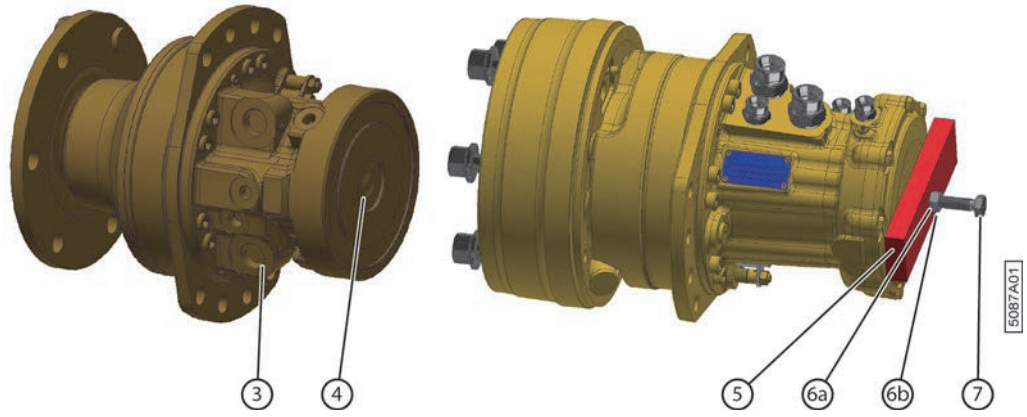


Fig. 138: Release the brake

3. Place the metal bar (5) across the width of the rear wheel.
4. Use oil to lubricate both sides of the washer (6a), and install the washer.
5. Insert the bolt (7) together with the nut (6b) through the opening of the metal bar, and tighten the bolt in the brake.

6. Tighten the nut until the brake for the rear wheel is released.
7. Repeat from step 2 for the other rear wheel.
8. Ensure that all protective panels are closed and secured.
9. Connect a towing belt to the towing eye (8) at the front of the machine.

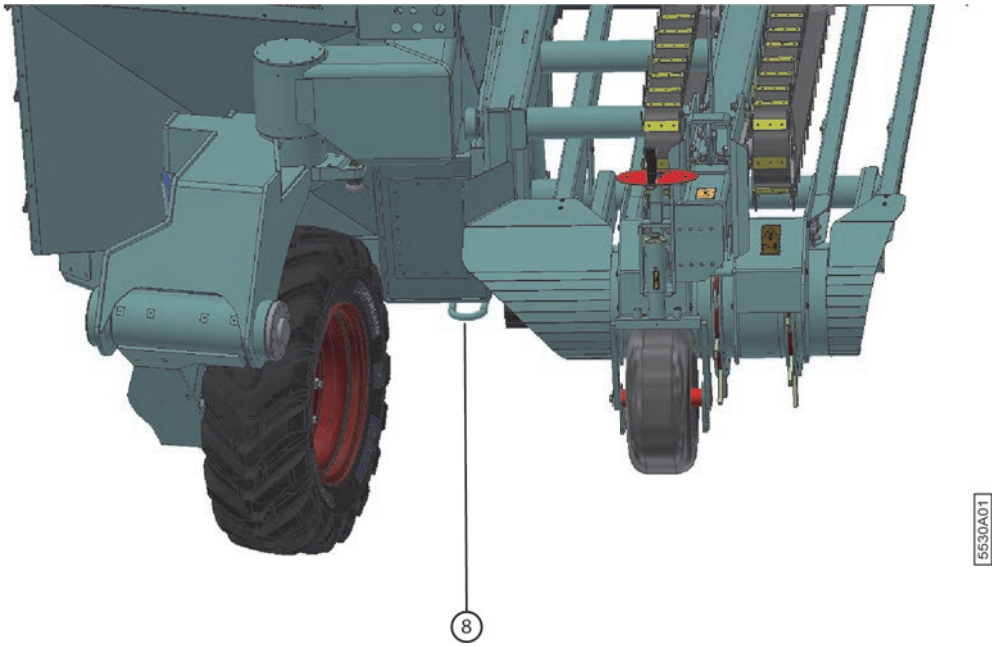


Fig. 139: Towing eye of the machine.

10. Connect the other end of the towing belt to the towing vehicle.
11. Tow the machine to the desired location. Move the front wheel of the machine in the towing direction,
12. After towing, remove the fittings from the wheels.
13. After towing, use a 22 mm spanner to tighten the bolts (1) to a torque of 70 Nm.

10.3.3 Jacking up the machine

You can jack up the machine to replace a wheel or perform maintenance work. Use a serviceable jack that has a minimum load-bearing capacity of 5 tons.

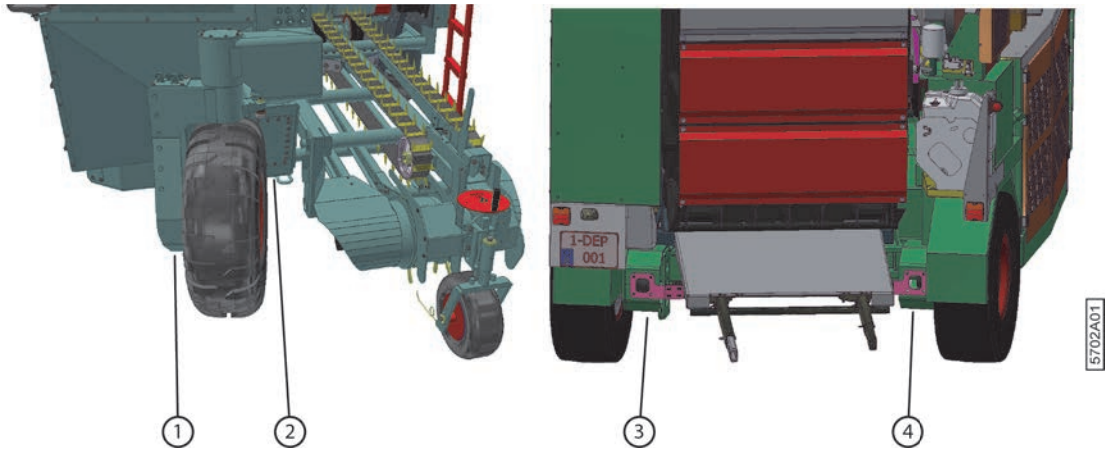


Fig. 140: Support points

Executor: maintenance technician

1. Switch OFF the machine safely.

2. Block the wheels by applying the parking brake.
3. Ensure that the surface underneath the support points is stable and flat.
4. Place a jack underneath one of the support points.

WARNING
The support point (1) on the front wheel may not be used to perform maintenance on the front wheel. Use the support point (2) beside the towing eye.

5. Jack up the machine. Ensure that the machine will not tip over.
6. Install robust supports when working on top of, underneath or on the machine.
7. Perform the required maintenance.
8. Remove the supports.
9. Slowly lower the machine.

10.3.4 Jacking up the machine (sprung front wheel)

You can jack up the machine to replace a wheel or perform maintenance work. Use a serviceable jack that has a minimum load-bearing capacity of 5 tons.

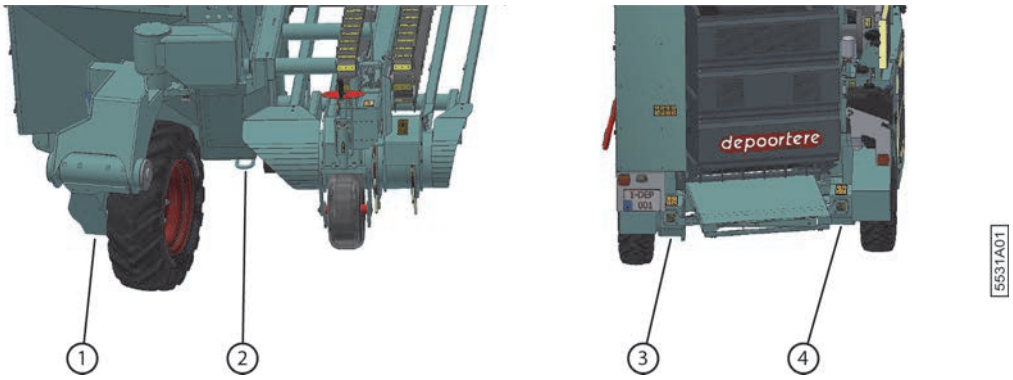


Fig. 141: Support points

Executor: maintenance technician

1. Switch OFF the machine safely.
2. Block the wheels by applying the parking brake.
3. Ensure that the surface underneath the support points is stable and flat.
4. Place a jack underneath one of the support points.

WARNING
The support point (1) on the front wheel may not be used. Use the support point (2) beside the towing eye.

5. Jack up the machine. Ensure that the machine will not tip over.
6. Install robust supports when working on top of, underneath or on the machine.
7. Perform the required maintenance.
8. Remove the supports.
9. Slowly lower the machine.

10.3.5 Welding on the machine

WARNING

Do not perform welding work on the machine if there is a bale in the pressing chamber.

Never weld in the vicinity of materials that can catch fire or melt. For example: belts, hydraulic pipes, wheels, battery. Welding spatter can penetrate a battery and cause an explosion.

Executor: maintenance technician

1. Switch OFF the machine safely.
2. Disconnect all controllers,
   - 2 controllers (1) and (2) on the inside of the door of the electrical cabinet (4).
   - 1 controller (3) on the rear of the electrical cabinet (4)

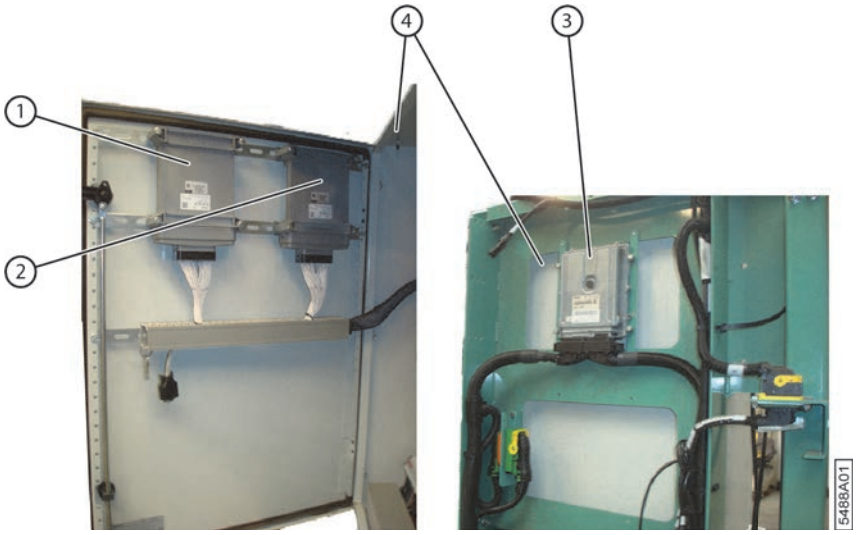


Fig. 142: Location of controllers

3. Remove all flammable products from the vicinity of the machine.
4. Remove all flax residues from the machine.
5. Remove the clamps from the battery terminals.
6. Place the negative clamp of the welding device as close as possible to the welding location in order to prevent damage to the electrical system.
7. Keep the fire extinguisher within easy reach.
8. Never weld in the vicinity of materials that can catch fire or melt.

   For example: belts, hydraulic pipes, wheels, battery.

WARNING
Welding spatter can penetrate a battery and cause an explosion.

See also
- 2.2.25 The electrical cabinet on page 41

10.3.6 Replacing a scraper

Executor: maintenance technician

1. Switch OFF the machine safely.

2. Undo the bolts (2).

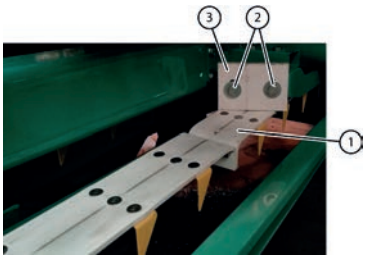


Fig. 143: Scraper OK

3. Replace the scraper (3) and install the scraper so that the scraper touches the conveyor belt (1).

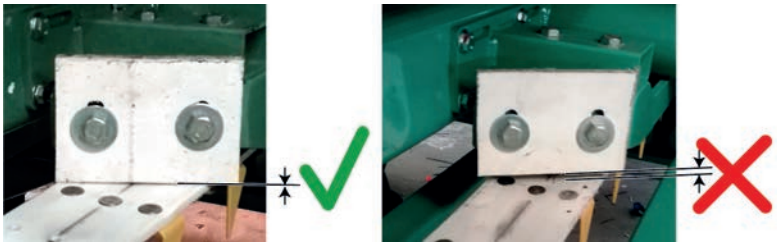


Fig. 144: Scraper OK or NOT OK

10.3.7 Replacing a conveyor belt

Executor: qualified technician

1. Switch OFF the machine safely.
2. Loosen the conveyor belts.
3. Loosen the connection (1) for the belts by unscrewing the 3 socket- screws (2).

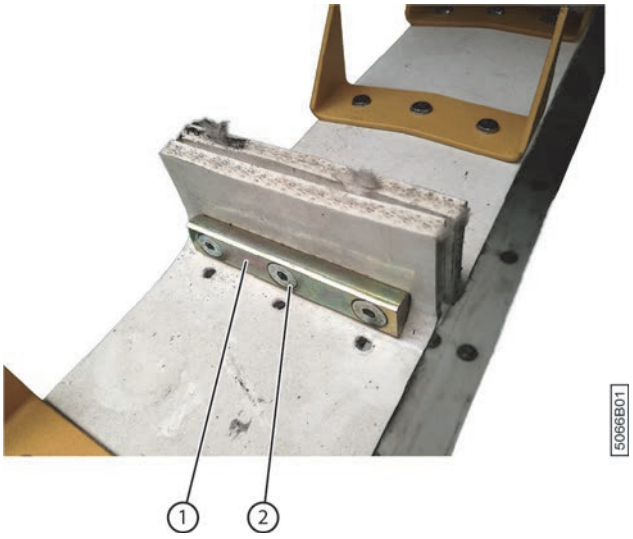


Fig. 145: Replacing a conveyor belt

4. Remove the conveyor belt.
5. Install a new conveyor belt. Pay attention to the mounting direction.
6. Retighten the connection.
7. Tension the conveyor belts.

10.3.8 Replacing a hydraulic component

NOTE
Hydraulic hoses are subject to a natural aging process and must be regularly replaced, even when no defects are visible externally. The maximum period of use for hydraulic hoses must usually not exceed 6 years, including a possible storage period of 2 years.

Executor: maintenance technician

1. Switch off the machine safely.
2. If the hydraulic component is located lower than the hydraulic tank, you must close the hydraulic tank via the strainer valve.

   Otherwise the entire tank will empty! For example: In the case of hydraulic valves that are located higher than the hydraulic tank, you must not close the filter valve.
3. Use a receptacle to catch the oil that is released.
4. Clean the area directly surrounding the connections for the hydraulic component.
5. Remove the component.
6. Clean the connections and ensure that dirt does not enter the hydraulic circuit.
7. Install the new component.
8. Reopen the straining valve.
9. Check the oil level of the hydraulic tank.
10. Switch ON the machine again.
11. Check the pressure values.

10.3.9 Replacing a pressing chamber belt (preventive)

If the pressing chamber belt exhibits too much damage or is worn too much, you can replace it as preventive maintenance.

Executor: maintenance technician

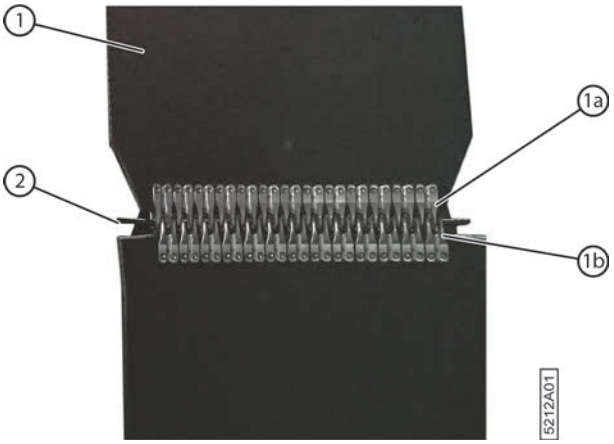


Fig. 146: Replacing a pressing chamber belt

1. Read safety instructions and observe them.
2. Rotate the pressing chamber belts until the connection of the pressing chamber belt to be replaced is visible at the rear of the pressing chamber.
3. Open the pressing chamber.
4. Switch OFF the machine safely.

5. Mechanically lock the pressing chamber.
6. Remove the connecting pin (2) to undo the connection for the pressing chamber belt.
7. Connect the new pressing chamber belt (end with the cut corners (1a)) to the end of the pressing chamber belt (1b) via the connecting pin.
8. Switch OFF the machine safely.
9. Allow the pressing chamber belts to rotate until the new pressing chamber belt has completed one full revolution.
10. Switch OFF the machine safely.
11. Disconnect the old pressing chamber belt by removing the connecting pin.
12. Use the connecting pin to connect the ends of the new pressing chamber belt to each other.
13. Switch ON the machine again.
14. Allow the pressing chamber belts to move a few revolutions, and check whether the new pressing chamber belts operate optimally and are correctly aligned.

10.3.10 Replacing a broken pressing chamber belt

Executor: maintenance technician

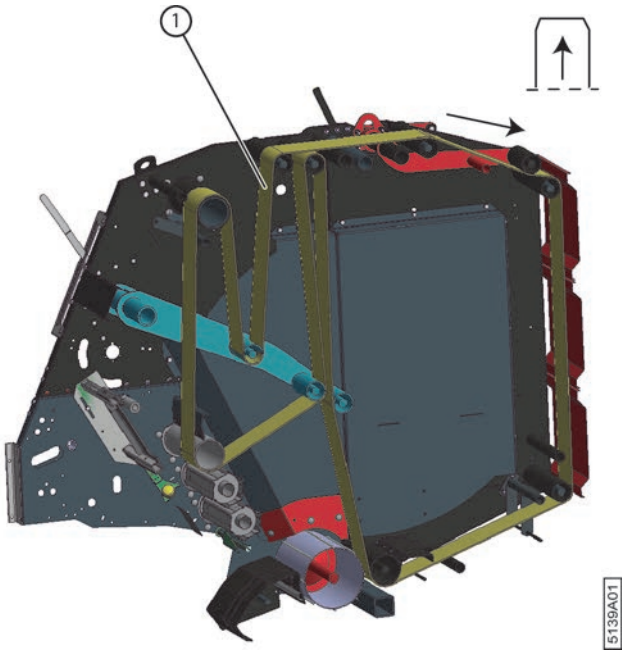


Fig. 147: Replacing a broken pressing chamber belt

1. Read safety instructions and observe them.
2. Open the pressing chamber.
3. Switch OFF the machine safely.
4. Mechanically lock the pressing chamber.
5. Remove the broken pressing chamber belt.
6. Connect a rope to the connection (side with cut corners) of the new pressing chamber belt.
7. Pull the rope through the pressing chamber in the direction of rotation. The direction of rotation is shown on the figure.
8. Disconnect the rope and use the connecting pin to connect the ends of the new pressing chamber belt to each other.
9. Switch ON the machine again.

10. Allow the pressing chamber belts to move a few revolutions, and check through the rear window of the cabin of the tractor, whether the new pressing chamber belts operate optimally and are correctly aligned.

10.3.11 Replacing the tooth of the pick-up drum (disk type)

The teeth of the pick-up drum come into contact with earth and stones and are subject to wear or can break. Regularly check the condition of the teeth and, if necessary, replace the teeth.

When replacing the teeth, the nylon GELEIDERS=guides for the teeth are replaced.

Executor: maintenance technician

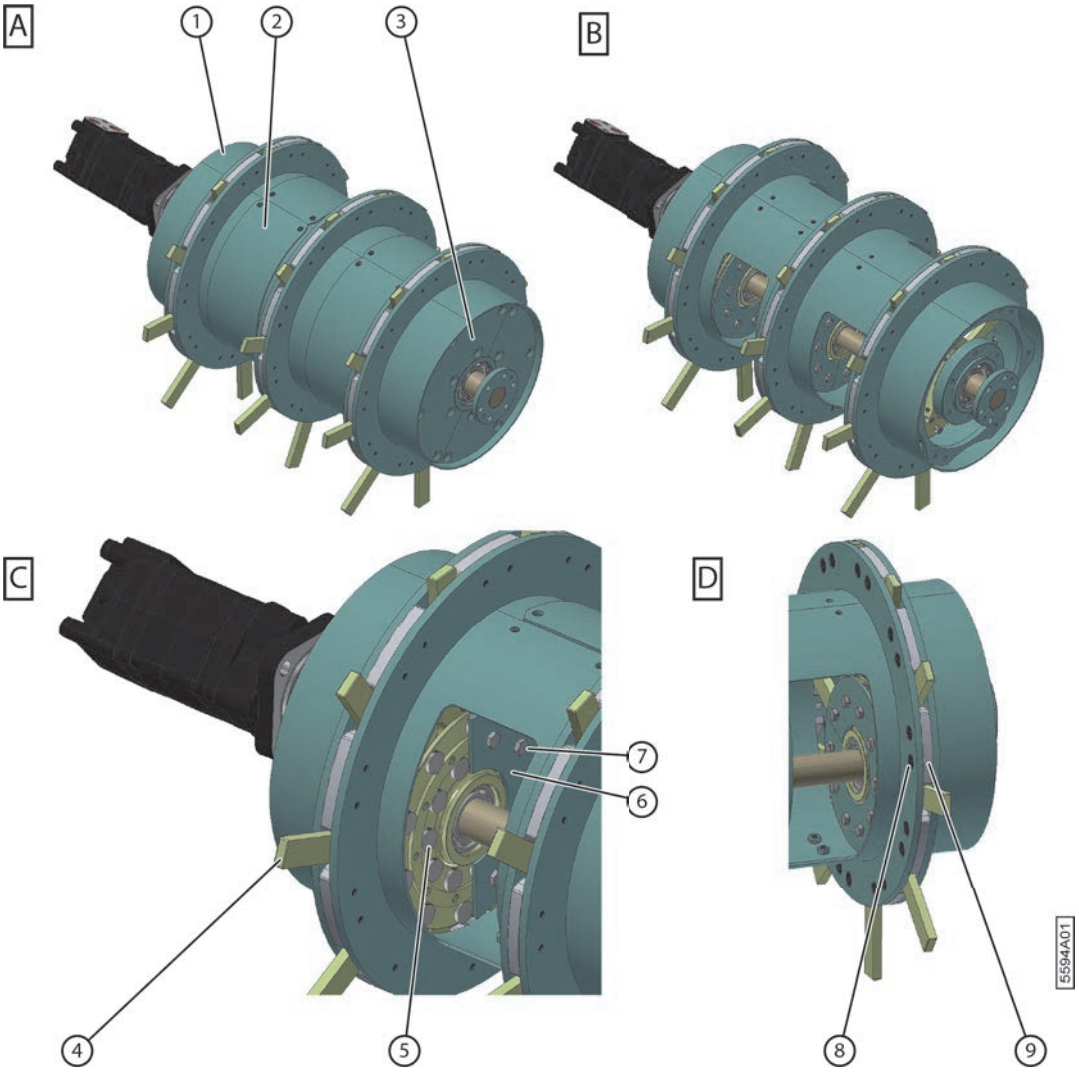


Fig. 148: Replacing the tooth of the pick-up drum

1. Remove the required protective panels (1), (2) and (3) of the pick-up drum.
2. Remove the required flanges (6) by removing the bolts (7).
3. Remove the rivets (5) from the tooth (4) to be replaced.
4. Remove the tooth.
5. Replace the nylon guides (9) by loosening the bolts (8).
6. Install a new tooth, and install new rivets.

CAUTION

Pay attention to the position of the recess in the tooth!

See figure. Viewed from the engine side. The arrow indicates the normal direction of rotation of the pick-up drum.

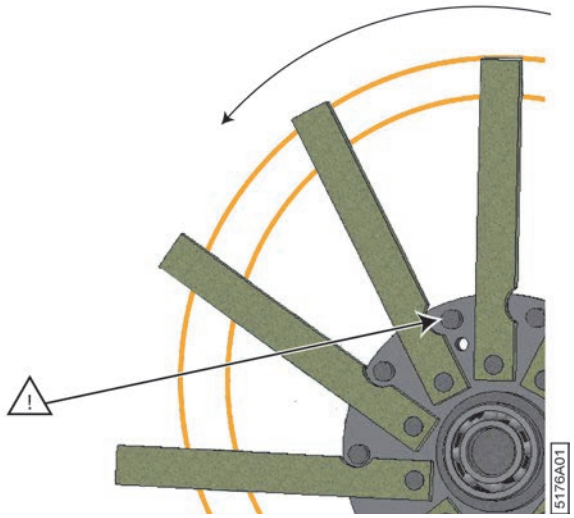


Fig. 149: Installing a new tooth

See also

- 10.2.28 Checking the teeth of the pick-up drum on page 173

10.3.12 Replacing the tooth of the pick-up drum (type iron u-profile)

The teeth of the pick-up drum come into contact with earth and stones and are subject to wear or can break. Regularly check the condition of the teeth and, if necessary, replace the teeth.

When replacing the teeth, the nylon guides for the teeth must also be replaced.

Executor: maintenance technician

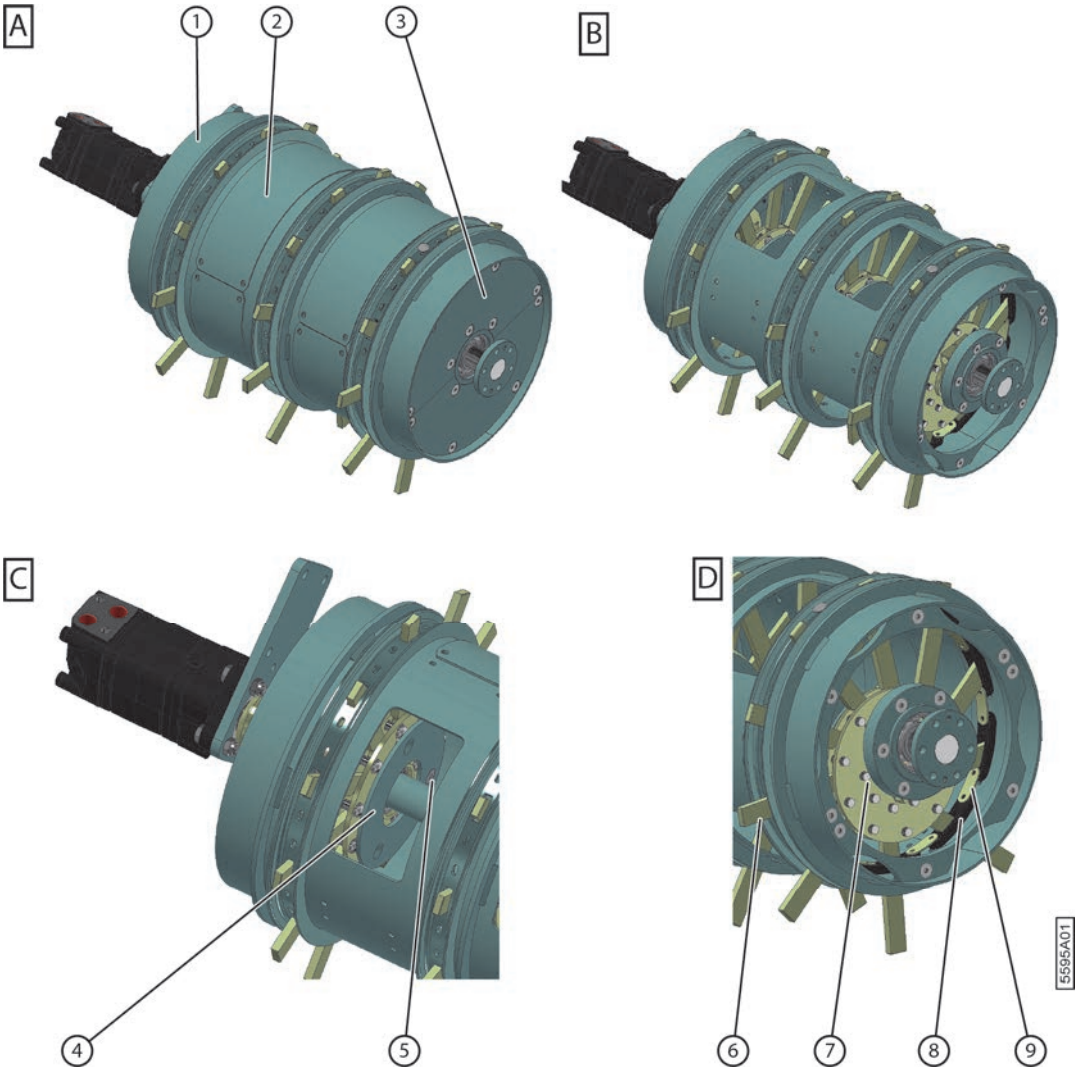


Fig. 150: Replacing the tooth of the pick-up drum

1. Remove the required protective panels (1), (2) and (3) from the pick-up drum.
2. Remove the required flanges (4) by removing the bolts (5).
3. Remove the rivets (7) from the tooth (6) to be replaced.
4. Remove the tooth.
5. Remove the plates (9) and replace the nylon guides (8).
6. Install a new tooth and install new rivets.

CAUTION

Pay attention to the position of the recess in the tooth!

See figure. Viewed from the engine side. The arrow indicates the normal direction of rotation of the pick-up drum.

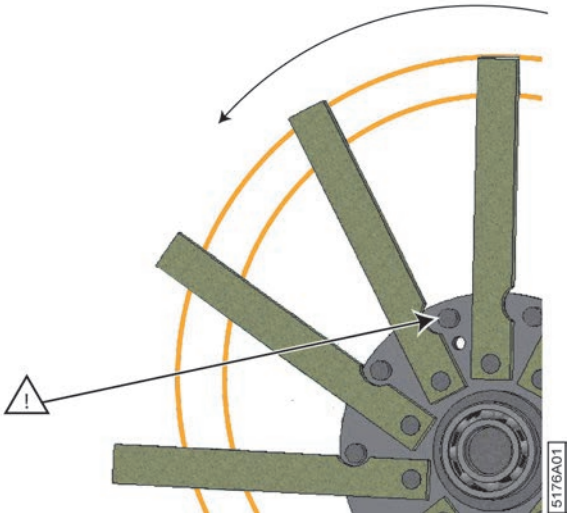


Fig. 151: Installing a new tooth

See also

- 10.2.28 Checking the teeth of the pick-up drum on page 173

10.3.13 Replacing the connecting pin of the pressing chamber belts

Executor: maintenance technician

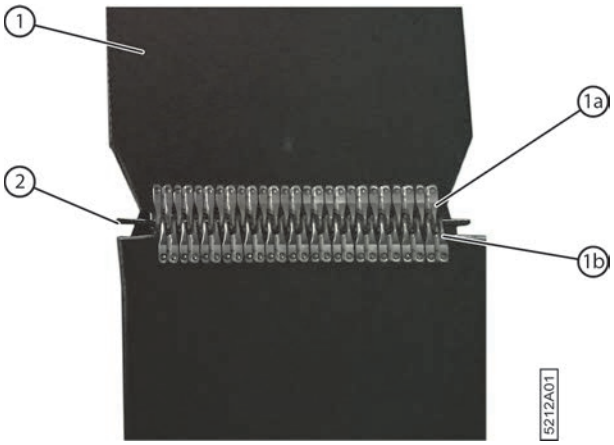


Fig. 152: Replacing a pressing chamber belt

1. Read safety instructions and observe them.
2. Rotate the pressing chamber belts until the connection is located at the rear of the pressing chamber.
3. Open the pressing chamber.
4. Switch OFF the machine safely.
5. Mechanically lock the pressing chamber.
6. Remove the connecting pin (2).
7. Install a new connecting pin.
8. Repeat for all pressing chamber belts.

9. Only allow the pressing chamber belts to move a few revolutions, and check through the rear window of the cabin of the tractor whether the pressing chamber belts with the new connecting pins operate optimally and are correctly aligned.

10.3.14 Replacing the chains and sprocket wheels

The chains must always be replaced together with the sprocket wheels.

Required:

- Dry PTFE spray (for example: WD-40 Lubricant dry PTFE with reference number: 553 3 394
- Chains and sprocket wheels (see spare parts list).

Executor: operator

1. Read the safety instructions and observe them.
2. Press button 1 on the joystick to open the pressing chamber. Continue to hold this button until a message is displayed on the l screen stating that the balancing arm is low.
3. Switch OFF the machine safely.
4. Open the front rope cabinet.
5. Undo the 2 bolts and open the protective planel.
6. Undo the connecting links to uninstall the chains.
7. Replace all sprocket wheels.
8. Install a new chain.
9. Lubricate all chains.

See also

- 10.2.67 Lubricate the chains on page 193

10.3.15 Replacing the wear plates of the top- and/or bottom plates

Executor: maintenance technician

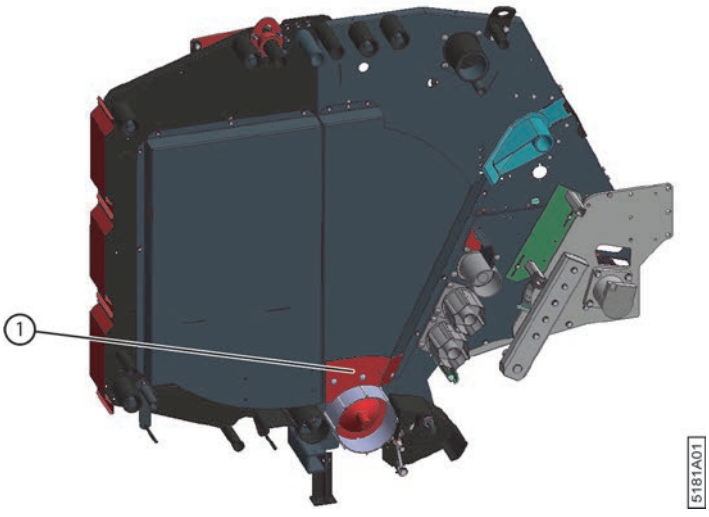


Fig. 153: Replacing wear plate

1. Open the pressing chamber.
2. Switch OFF the machine safely.

3. Mechanically lock the pressing chamber.
4. Remove the wear plate.
5. Install a new wear plate.

10.3.16 Checking the fuel level

Fig. 154: Checking the fuel level

1. Move to the right-hand side of the machine next to the fuel filler pipe (1) and the fuel tank (3).
2. Check the fuel level on the level meters (2) and (4) mounted on the fuel tank.

See also

- 2.2.23 The fuel tank on page 41
- 10.3.17 Permitted fuel on page 208

10.3.17 Permitted fuel

Only sulphur-free fuels with the following specifications may be used:

Fuel	Specification
Diesel	EN 590 Sulphur <10 mg/kg
	ASTM D 975 Grade 1D S15
	ASTM D 975 Grade 2D S15 Sulphur <15 mg/kg
Light fuel oil	EN 590 quality Sulphur <10 mg/kg

The guarantee is rendered invalid if fuels that do not satisfy the requirements stated in this manual are used.

CAUTION
When selecting a fuel, also take the current local regulations into account.

See also

- 10.3.16 Checking the fuel level on page 208

10.3.18 Filling the fuel tank

It is recommended to fill the fuel tank with diesel at the end of the working day in order to prevent water vapour from being present.

Fig. 155: Filling the fuel tank

Required:

See 10.3.17 Permitted fuel on page 208.

1. Switch off the engine and remove the key from the ignition.

CAUTION

Never fill the fuel tank in the vicinity of naked flames or sparks.

Never smoke when filling the fuel tank.

Immediately wipe away any spilled fuel. Fuel that ends up on hot parts can self-ignite.

Ensure that you are not overcome by fuel vapours.

2. Unscrew the filler cap from the fuel filler pipe (1).
3. Fill the fuel tank (3) with diesel that has an optimal quality and use the level meters (2) and (4) that are mounted on the fuel tank to check the level of fuel.
4. Fill the fuel tank up to the top mark on the level meter (2). Never fill the fuel tank up to the brim! Space must always be provided for the expansion of the fuel!
5. Before driving away, check that there are no signs of leaks underneath the fuel tank.

See also

- 2.2.23 The fuel tank on page 41

10.3.19 Replacing a knife of the binding rope system

Executor: maintenance technician

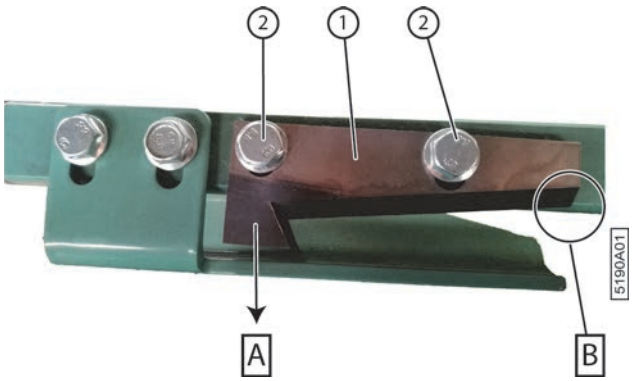


Fig. 156: Replacing a knife

1. Read the safety instructions and observe them.
2. Open the pressing chamber.
3. Switch OFF the machine safely.
4. Mechanically lock the pressing chamber.
5. Loosen the 2 bolts (2) and remove the knife.
6. Install a new knife.

   The knife must be correctly positioned. One side (B) must be installed so that it completely touches the profile. This enables the rope to be optimally guided. The other side (A) must be installed as far as possible in the direction of the arrow.

10.3.20 Checking the position of a knife of the binding rope system

Executor: maintenance technician

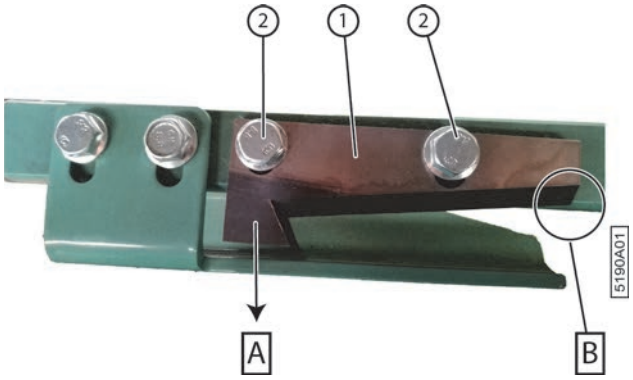


Fig. 157: Replacing a knife

1. Read the safety instructions and observe them.
2. Open the pressing chamber.
3. Switch OFF the machine safely.
4. Mechanically lock the pressing chamber.
5. Check that the knife (1) is correctly installed.

   - Side (B) must be installed so that it fully touches the profile. This enables the rope to be optimally guided.
   - Side (A) must be installed as far as possible in the direction of the arrow.

   If the knife is not correctly installed, then loosen the bolts (2), move the knife to the correct position, and retighten the bolts that secure the knife.

10.3.21 Replacing the fingers of the binding rope system (type 1)

Executor: maintenance technician

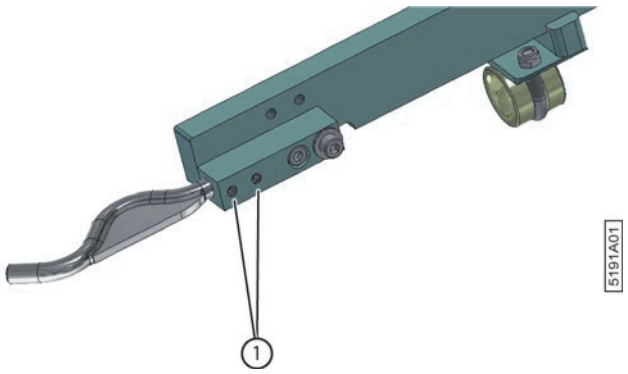


Fig. 158: Replacing fingers of binding rope system

1. Open the binding rope system.
2. Open the pressing chamber.
3. Switch OFF the machine safely.
4. Mechanically lock the pressing chamber.
5. Loosen the 2 socket screws (1) until you can pull the finger out of the holder.
6. Place a new finger in the holder.
7. Tighten the 2 socket screws to secure the finger.

10.3.22 Replacing the fingers of the binding rope system (type 2)

Executor: maintenance technician

This procedure is applicable to the fingers that are cast as a single piece.

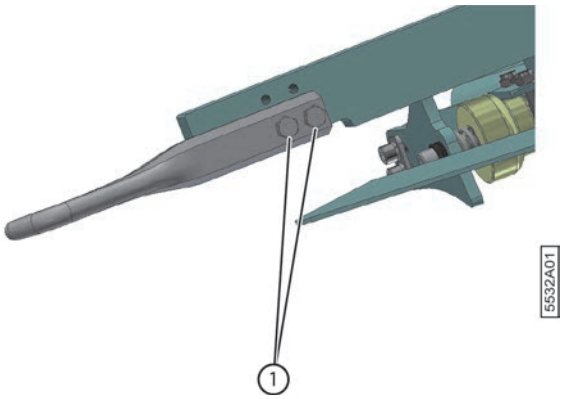


Fig. 159: Replacing fingers of the binding rope system

1. Open the binding rope system.
2. Open the pressing chamber.
3. Switch OFF the machine safely.
4. Mechanically lock the pressing chamber.

5. Loosen the 2 bolts (1).
6. Place a new finger in the holder.
7. Tighten the 2 bolts to secure the finger.

10.3.23 Replacing an attachment on the conveyor belt

Executor: qualified technician

Required:

- Attachment See the spare parts list for the correct reference.
- Special bolts M6 x 20. See the spare parts list for the correct reference.

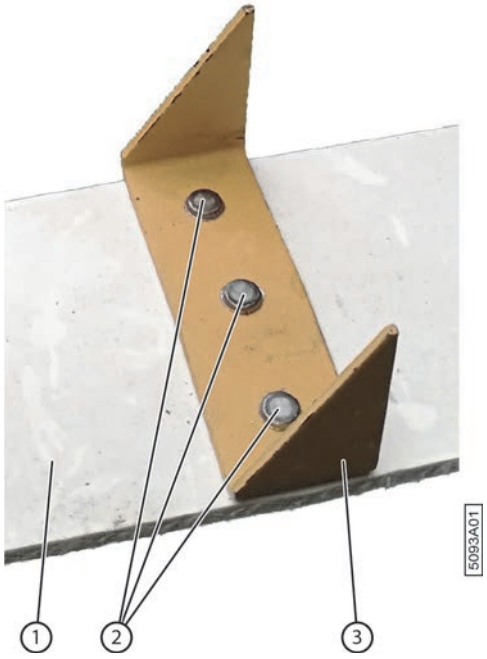


Fig. 160: Replacing attachment

1. Switch OFF the machine safely.
2. Grind off the rivets (2) on the side of the attachment (1).
   This prevents damage to the belt (1).
3. Install the attachment on the belt and secure it using the 3 bolts.
   You install the flat head of the bolt in the belt. On the other side of the belt, you install the attachment with lock nuts.
4. Select the start window.

10.3.24 The exhaust gas post-treatment system

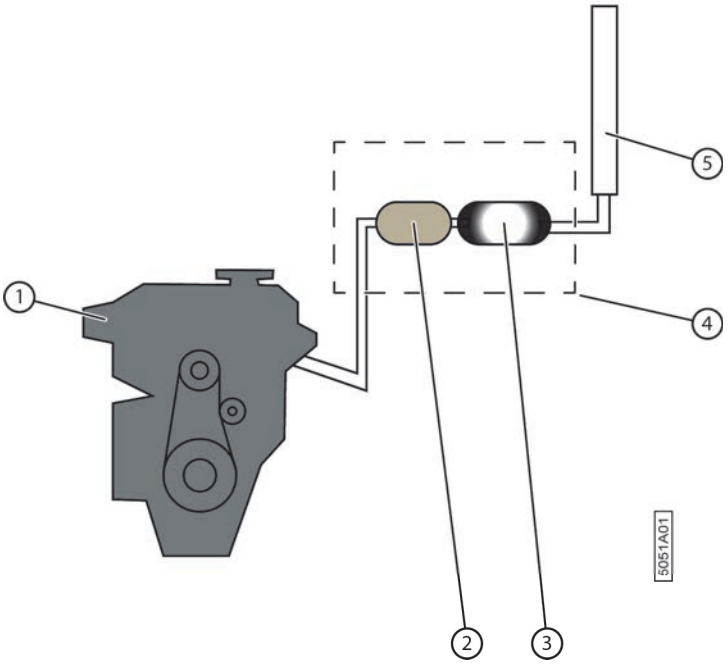


Fig. 161: Exhaust gas post-treatment system

Regeneration continuously takes place in the exhaust gas post-treatment system (4). After every 550 hours, a standstill-regeneration is also required.

The catalyser (SCR or selective catalytic reduction) reduces the amount of nitrogen oxide emitted by the engine (1). For this, AdBlue is injected into the exhaust gases system. In the catalyser (2), the AdBlue reacts with the nitrogen oxide that is present in the exhaust gas, to produce nitrogen and hydrogen.

The soot and fine particles are retained by the soot filter and are stored there. After every 550 hours, a message is generated stating that the standstill-regneration must be performed. The regeneration combusts the soot in the soot filter. During the combustion, the temperature of the exhaust gases in the exhaust (5) increases to more than 600 °C.

After every regeneration, ash particles are left behind in the soot filter. A message is displayed if too much ash accumulates in the soot filter, and the soot filter must be replaced or cleaned. The replacement of a soot filter depends on the use of the engine and the message for this will be displayed between 5,000 and 10,000 hours or between 20 and 40 years for this machine.

NOTE
AdBlue is a registered trade name. The technical name is AUS32. In the United States, it is known as DEF (Diesel Exhaust Fluid), and in Brasil as ARLA32.

10.3.25 Limiting the power and the revs./minute

In order to satisfy the European directives, if the exhaust gas post-treatment system does not operate correctly, the relevant fault messages are displayed and limitations are implemented. For example, in the initial phase of incorrect operation, the engine power can be reduced and, in the next phase, the engine revs./minute can also be limited. If the engine continues to be used, it will come to a standstill, and can then only be restarted by DEUTZ!

The power limitation can only be temporarily disabled in phase 1 and phase 2 in order to allow the driver to bring the machine to a safe location!

The temporary disabling is:

- 30 minutes for the EMR 4 type of engine
- 25 minutes for the EMR 5 type of engine

If you switch OFF the engine during the temporary disabling of the power limitation, the remaining time for disabling will be saved and used subsequently. If you switch the engine back ON, the disabling of the power limitation will immediately be reactivated during the remaining saved time.

See also
- 10.3.30 Temporarily disabling the power limitation on page 216

10.3.26 When is a standstill-regeneration required?

The message for performing a standstill-regeneration can be displayed for the following reasons:

- 550 hours have elapsed since the last complete and successfully performed standstill-regeneration.
- The soot content in the soot filter exceeds the permissible amount.
- If the automatic regeneration is not adequate, the engine reverts to warming-up mode 1. If this mode is not adequate, the engine reverts to warming-up mode 2. If the warming-up time in warming-up mode 2 takes too long, then a standstill-regeneration will be requested.
- Crystallisation occurs in the SCR system.

See also
- 10.3.27 Conditions for performing a standstill-regeneration. on page 214

10.3.27 Conditions for performing a standstill-regeneration.

The conditions for performing an optimal standstill-regeneration are:

- The machine must have a safe status. If this is not the case, the standstill-regeneration will not be performed, or the standstill-regeneration will immediately stop. For example: the joystick must be in neutral in order to go to STOP mode and activate the standstill-regeneration.
- On the control screen, you must confirm that the standstill-regeneration may be performed.
- The engine must be idling, and an engine fault must not be present.
- The SCR system must generate a signal so that the regeneration can be performed. The AdBlue tank may not be frozen!
- You may not activate any function of the machine.
- You may not drive the machine.

See also
- 10.3.26 When is a standstill-regeneration required? on page 214
- 10.3.29 Performing the standstill-regeneration of the soot filter on page 216

10.3.28 The 3 phases of standstill-regeneration

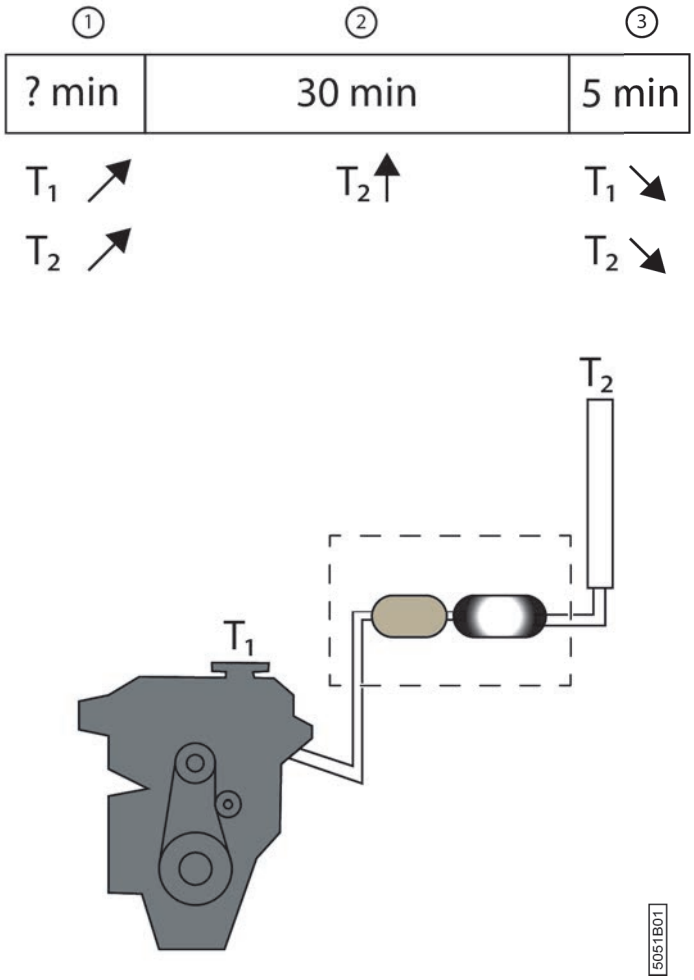


Fig. 162: The 3 phases of standstill-regeneration

The 3 phases are:

Nr.	Description	More information
1	Warming-up phase	The warming-up phase is activated depending on the coolant temperature T1 and the exhaust gas temperature T2. During the warming-up phase, the engine revs./ minute are increased in order to speed up the the warming-up of the coolant and the exhaust gas. The duration of this phase depends on the initial temperature of the coolant and exhaust gas. The coolant temperature must be higher than 65 °C.
2	Main phase	When the desired temperatures are reached, the main phase begins. The exhaust gas temperature continues to increase and remains at a high value. This phase takes approximately 30 minutes.
3	Cooling-down phase	When the main phase has finished, the engine and the EAT system are cooled-down for approximately 5 minutes during the cooling-down phase. This is necessary to protect the hardware.

10.3.29 Performing the standstill-regeneration of the soot filter

After every 550 hours, a standstill-regeneration must be performed. This regeneration takes approximately 40 minutes. During this regeneration, the machine may not be used or driven!

After every 550 hours, a message is displayed on the control screen stating that a standstill-regeneration must be performed. If a standstill-regeneration has already been performed during the intervening period due to problems being encountered, the next standstill-regeneration will be performed 550 hours later.

During a standstill-regeneration, the soot filter of the engine is cleaned. It is recommended to perform the standstill-regeneration as soon as possible after the message, in order to prevent certain engine functions from being activated, causing the engine power to be decreased.

The regeneration can ONLY be performed if a corresponding message is displayed.

1. Read beforehand: 10.3.27 Conditions for performing a standstill-regeneration. on page 214.
2. Place the machine on open land, at a safe distance from flammable objects.
3. Remove all of the dust and dirt beside the exhaust.

   WARNING
   FIRE RISK! During a standstill-regeneration, dust and dirt can start to combust! Keep the fire extinguisher within easy reach!

4. Run the engine at idling speed.
5. Place the joystick in the neutral position.
6. Press **OK**.

   The standstill-regeneration starts and takes 30 minutes. The entire duration of the standstill-regeneration depends on the initial temperature of the coolant and the exhaust gas. Press **Stop regeneration** to interrupt the regeneration. This is not recommended because this means that the entire standstill-generation has to be started again.

   WARNING
   Closely monitor the exhaust system during the entire regeneration. During the standstill-regeneration, the exhaust reaches temperatures of approximately 600 °C!

   NOTE
   You may not use the machine during standstill-regeneration! Risk of burns!

See also

- 10.3.27 Conditions for performing a standstill-regeneration. on page 214
- 10.3.30 Temporarily disabling the power limitation on page 216

10.3.30 Temporarily disabling the power limitation

If the requested standstill-regeneration is not performed, then the system will react after a certain time with a power limitation (phase 1) and also later with an engine speed limitation (phase 2). The power limitation caused by the exhaust gas post-treatment system (EAT) can be temporarily disabled:

- 30 minutes for the EMR 4 type of engine
- 25 minutes for the EMR 5 type of engine

WARNING
The disabling of the power limitation is ONLY intended to allow the driver to bring the machine to a safe location!

1. Go to the menu via .
2. Select STOP > **DPF**.
3. Select **Force EAT system?**.
4. Confirm in the dialog box.
   The **Force EAT system** button flashes.

See also
- 10.3.25 Limiting the power and the revs./minute on page 213
- 10.3.29 Performing the standstill-regeneration of the soot filter on page 216

10.3.31 Replacing a sensor

Executor: maintenance technician

1. Switch OFF the machine safely.
2. Measure and note the present position of the sensor.
3. Replace the sensor and install it in the same position as the previous sensor.
4. Test the operation of the sensor.

See also
- 2.2.35 Overview of the sensors on page 51

10.3.32 Replacing a fuse

The fuses are located in the electrical cabinet and in the cabin. For more information: see the electrical diagram.

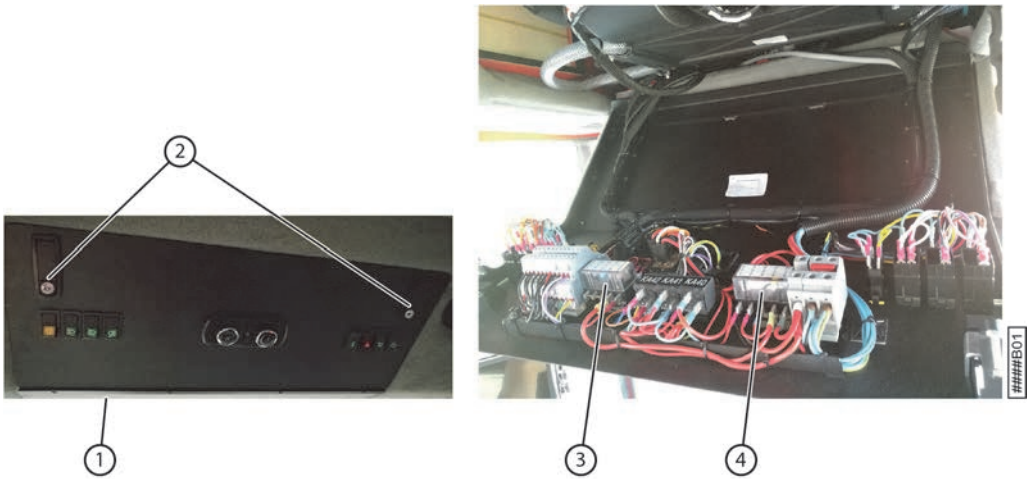


Fig. 163: Replacing a fuse in the cabin

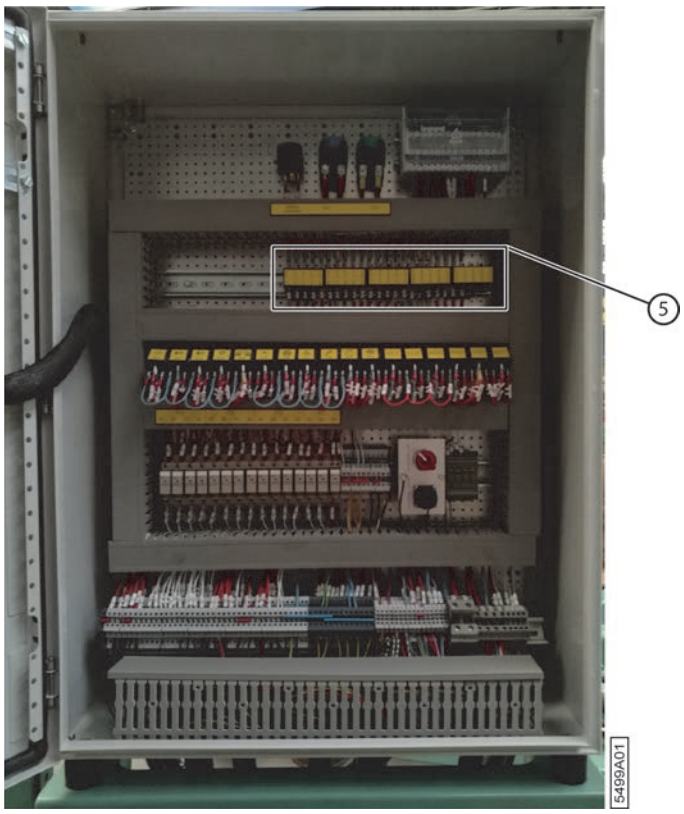


Fig. 164: Replacing a fuse in the electrical cabinet

1. Perform one of the following actions, depending on where the fuse is located:

Location	Fuses	Instruction
Electrical cabinet	F1 - F15 F26 - F35	Open the electrical cabinet.
Cabin	F16 - F25	Unlock the locks of the levers (2) and press the levers to open the panel (1). The fuses are located on the inside of the the panel at locations (3) and (4).

2. Replace the fuse.

NR	Explanation	Value	Location
FG	General fuse battery	100A	Battery key
FG1	General fuse power supply electrical cabinet	60A	Electrical cabinet
FG2	General fuse before the battery switch	40A	Electrical cabinet
F1	Module MC50 / screen / engine module	15A	Electrical cabinet
F2	Hazard warning lights (4 flashing lights)	10A	Electrical cabinet
F3	Indicators and flashing light	10A	Electrical cabinet
F4	Sidelights	10A	Electrical cabinet
F5	Dipped beam headlights	10A	Electrical cabinet
F6	Main beam headlights	15A	Electrical cabinet
F7	Work lights on the machine	25A	Electrical cabinet
F8	Buzzer, brake lights, horn, switch for flashing light	10A	Electrical cabinet
F9	Ignition switch key	10A	Electrical cabinet

NR	Explanation	Value	Location
F10	Relay electronic valves • R1 Parking brake • R2 Road and field speed • R3 Conveyor belts and pick-up forwards • R4: Lowering pick-up	10A	Electrical cabinet
F11	Relay electronic valves: • R5: Raising pick-up • R6: Open pressing chamber • R7: Close pressing chamber • R8: Stop fan	10A	Electrical cabinet
F12	Relay electronic valves • R9: Fan at rear • R10: Open needles • R11: Close needles • R12: Conveyor belts and pick-up backwards	10A	Electrical cabinet
F13	Sensors • S6: Rope-break 1 • S7: Rope-break 2 • S8: Open pressing chamber • S9: Close pressing chamber • S10: Balancing arm low • S11: Maximum diameter • S12: Driving speed • S13: Blockage feed driving • S14: Blockage feed harvest	5A	Electrical cabinet
F14	Joystick, radio after ignition and sensors: • S1: Speed of pressing chamber • S2: Water level • S3: Hydraulic oil level • S4: Blockage in hydraulic oil feed • S5: Blockage in air filter	5A	Electrical cabinet
F15	12-volt connection, compressor driver's seat	5A	Electrical cabinet
F16	Radio before ignition	5A	Cabin
F17	Lamp in the cabin	5A	Cabin
F18	Windscreen wipers	15A	Cabin
F19	Windscreen washers	5A	Cabin
F20	Camera and radio after ignition	5A	Cabin
F21	Power supply air conditioning thermostat	5A	Cabin
F22	Air conditioning control	2A	Cabin
F23	Work lights rear cabin	10A	Cabin
F24	Air conditioning control	20A	Cabin
F25	Work lights front cabin	15A	Cabin
F26	Air conditioning compressor	30A	Electrical cabinet
F27	Engine module before ignition	30A	Electrical cabinet
F28	Heating resistors AdBlue	2A	Electrical cabinet
F29	Engine data sheet X46.1	15A	Electrical cabinet

NR	Explanation	Value	Location
F30	Engine data sheet X46.2	5A	Electrical cabinet
F31	Heating valve	5A	Electrical cabinet
F32	Road speed valve (1/2 cylinder)	5A	Electrical cabinet

3. Close the panel in the cabin and/or close the electrical cabinet.
4. Check the operation of the machine.

See also

- 2.2.25 The electrical cabinet on page 41

11 Trouble-shooting

11.1 The engine does not want to start

Check the following:

- the level of fuel in the fuel tank.
- the oil level.
- the condition of the battery. Is the battery sufficiently charged?
- the position of the battery key.
- the fuses.

11.2 Performing tests

Perform a few tests to ascertain what does work and what does not work.

1. Perform the following tests:
   - Does everything work when driving forwards?
   - Does everything work when driving backwards?
   - Does everything work when the machine is stationary?
   - Can the conveyor belts rotate?
   - Can the pick-up be raised or lowered?
2. Check the optimal operation of all sensors.

See also

- 10.2.51 Testing the operation of the sensors on page 185

11.3 Troubleshooting table

For the fault messages that are displayed on the control screen, see 11.4 Fault-finding table messages on the control screen on page 223. For faults relating the engine, see manual supplied for the engine, or see 11.5 Overview DEUTZ engine faults on page 229.

Fault	Explanation / Cause	Solution
The needles of the binding system move too quickly and skip a position.	The valve for the speed of the binding system is not optimally adjusted.	Setting the speed of the needles of the binding system. See 11.7 Adjusting the opening speed of the needles for the binding rope system on page 230.

Fault	Explanation / Cause	Solution
A rope-break message has been received, but a rope-break did not occur.	The break monitoring tool (aluminium disk) still rotates, but all metal socket-screws have vibrated loose. A socket-screw has vibrated loose and is impeding the break monitoring tool so that it no longer rotates. The break monitoring tool no longer rotates and does not move due to fibres and dirt. The original socket-screws have been replaced by non-conducting socket-screws. The sensor does not detect movement of the break monitoring tool.	Screw new socket-screws into the break monitoring tool, and secure them using Loctite. Unscrew the socket-screw so that the break monitoring tool can once again freely rotate. Screw the socket-screw in again and secure it using Loctite. Disconnect the break monitoring tool, clean everything and resecure the break monitoring tool. Check that the break monitoring tool can once again freely rotate. Replace all socket-screws with the correct conducting socket-screws. Secure the socket-screws using Loctitie.
The ropes are tensioned too tightly at the beginning of the cycle.	The tension has not been corrrectly adjusted. The stop of the rope tensioning system is deformed.	See 9.3.1 Adjusting the rope tensioning system on page 146. See 11.9 Checking the stop for deformation on page 231.
Insufficient density of the bale.	Too low clamp pressure.	Increase the clamp pressure. See 9.4.1 Adjusting the clamp pressure on page 147.
	Irregular feeding-in of the flax.	Ensure that the flax is fed-in uniformly.
	Pressing chamber belts have different lengths.	Remove the pressing chamber belts and check whether they are the same length. If necessary, adjust the length.
The pressing chamber belts have broken	A foreign object was present in the flax.	Check and, if necessary, repair or replace the pressing chamber belts.
	The pressing chamber belts are not correctly aligned.	Correctly adjust the guides for the pressing chamber belts.
	The bale has exceeded the maximum diameter.	Check the sensor.
	Pressing chamber belts have different lengths.	Remove the pressing chamber belts and check whether they are the same length. If necessary, adjust the length.
The chain jumps over a tooth.	The chain tensioners are too loose.	Adjust the chain tensioners. 9.4.4 Adjusting the automatic chain tensioner on page 149. 9.4.5 Adjusting the manual chain tensioner on page 151
	The chain or sprocket wheels are worn.	Replace the chain and sprocket wheels. See 10.3.14 Replacing the chains and sprocket wheels on page 207
The ropes are not cut.	The knives are worn.	See 10.3.19 Replacing a knife of the binding rope system on page 209.
	The knife is not optimally positioned.	See 10.3.20 Checking the position of a knife of the binding rope system on page 210.
	The finger is not optimally positioned.	See 11.8 Checking the position of the finger on page 231.
	The ropes are not optimally clamped between the mushroom and the metal rope guide.	See 9.4.6 Adjusting the clamping between the mushroom and the metal guide on page 153

Fault	Explanation / Cause	Solution
The ropes are not taken by the bale.	The balancing arm pulls the ropes from the binding system instead of from the rope cabinet.	See 9.3.1 Adjusting the rope tensioning system on page 146.
	Ropes are not long enough.	Pull the ropes at least 20 cm into the pressing chamber.
	The tension on the ropes is too high.	Change the tension on the rope tensioners and/or check the entire path of the ropes. See 9.3.1 Adjusting the rope tensioning system on page 146.
	The ropes were not correctly cut.	Manually cut the ropes and place the ropes in the correct position.
	The rope is unsuitable for binding the flax.	For optimal operation of the binding system, it is recommended to use Sisal or jute rope that has a ratio of 500 to 750 metres per kg.
The bale is not bound or incorrectly bound on one side.	A rope-break occurred during the binding and the fault message was disabled.	Adjust the **Stop binding rope-break** parameter to **YES**. See 8.2.68 Setting a parameter on page 131.
	Both ropes are taken by one finger.	See 10.2.57 Checking the binding rope system for deformation and wear on page 187.
The ropes are not cut and a fault message is not diplayed.	A rope-break occurred during the binding and the fault message was disabled.	Adjust the **Stop binding rope-break** parameter to **YES**. See 8.2.68 Setting a parameter on page 131.
The compressor for the seat is no longer operational.	The fuse has ruptured.	Also check whether the 12V connection point for the cigarette lighter is defective. If this is the case, fuse F15 is defective. If this is the case, replace fuse F15 in the electrical cabinet.
The screen does not work.	The emergency stop button is locked. Cables have come loose from the emergency stop button.	Release the emergency stop button. Repair the emergency stop button.

11.4 Fault-finding table messages on the control screen

All fault messages for the engine are displayed in the form of SPN and FMI on the screen. For explanation relating to the cause and the solution, see 11.5 Overview DEUTZ engine faults on page 229.

The other messages are displayed without SPN or FMI code on the screen. The table below provides an overview of the messages as well as the fault messages. Additional explanation is given for the messages. The possible cause and the possible solution are stated beside the fault messages.

Nr.	Message / Fault	Explanation / Cause	Solution
-	**Power steering error**	The steering is no longer power-assisted. Steering thus requires more muscle power from the driver, and is thus more challenging. The brake pedal is also no longer power-assisted. Take this into account. You can still brake via the joystick. There is a problem with the hydraulic circuit.	Allow an experienced technician to inspect the hydraulic circuit as soon as possible! If the message is displayed and the power-assisted steering and brake still work, then the problem will have to be solved electrically.
-	**Replace the soot filter (DPS)**	-	-
-	**Replace the engine oil**	-	-
-	**ENGINE FAULT**	Engine fault.	See 11.5 on page 229
-	**AdBlue level low**	AdBlue level too low.	Top up the AdBlue tank
-	**Regeneration is active Do NOT stop engine**	The regeneration is busy. Do NOT switch off he engine.	-
-	**Regeneration successfully performed!**	The regeneration has been successfully performed,	-
-	**Engine limitation 1 AdBlue not OK**	The engine power is limited. The quality of the AdBlue is not optimal.	Replace the AdBlue and clean the entire AdBlue system.
-	**Engine limitation 2 AdBlue not OK**	The engine power is limited. The quality of the AdBlue is not optimal.	Replace the AdBlue and clean the entire AdBlue system.
-	**Engine limitation 1 SCR not effective**	The engine power is limited. The SCR is not working correctly.	Contact DEUTZ
-	**Engine limitation 2 SCR not effective**	The engine power is limited. The SCR is not working correctly.	Contact DEUTZ
-	**Engine limitation 1 AdBlue level low**	The engine power is limited. Level of AdBlue is too low.	Top up the AdBlue tank
-	**Engine limitation 2 AdBlue level low**	The engine power is limited. Level of AdBlue is too low.	Top up the AdBlue tank
-	**Engine limitation 3 AdBlue level low**	The engine power is limited. Level of AdBlue is too low.	Top up the AdBlue tank
-	**Engine limitation 1 Self-protection**	The engine power is limited. Self-protection of the engine.	This is a general fault message indicating that the engine power is limited. The general fault message is followed by a specific fault message. Resolve this specific fault message as soon as possible.
-	**Engine limitation 2 Self-protection**	The engine power is limited. Self-protection of the engine.	This is a general fault message indicating that the engine power is limited. The general fault message is followed by a specific fault message. Resolve this specific fault message as soon as possible.
-	**Engine limitation 3 AdBlue not OK**	You have continued to work for too long without resolving the problem. The engine power is severely limited.	This severe limitation of the engine power can only be resolved by DEUTZ. Contact DEUTZ.
-	**Engine limitation 3 SCR not effective**	You have continued to work for too long without resolving the problem. The engine power is severely limited.	This severe limitation of the engine power can only be resolved by DEUTZ. Contact DEUTZ.

Nr.	Message / Fault	Explanation / Cause	Solution
-	**Engine limitation 3 Self-protection**	You have continued to work for too long without resolving the problem. The engine power is severely limited.	This severe limitation of the engine power can only be resolved by DEUTZ. Contact DEUTZ.
-	**Problem with SCR system**	Problem with SCR system.	See DEUTZ manual
-	**Regeneration required**	Regeneration of the soot filter is necessary.	Perform the regeneration of the soot filter. See 10.3.29 on page 216.
-	**Regeneration required Engine limitation active**	Regeneration of the soot filter is necessary. The engine power is limited.	Perform the regeneration of the soot filter. See 10.3.29 on page 216.
-	**Regeneration required DEUTZ service required**	Regeneration of the soot filter is necessary. Can only be performed by the Service Department of DEUTZ.	Contact DEUTZ.
A-140	**Power supply too low MC050-110 Module 1**	The power supply for module 1 is too low.	Check the voltage on the machine. Check the cabling to the module.
A-141	**Power supply too high MC050-110 Module 1**	The power supply for module 1 is too high.	Check the voltage on the machine. Check the cabling to the module.
A-160	**Power supply too low MC050-110 Module 2**	The power supply for module 2 is too low.	Check the voltage on the machine. Check the cabling to the module.
A-161	**Power supply too high MC050-110 Module 2**	The power supply for module 2 is too high.	Check the voltage on the machine. Check the cabling to the module.
A-500	**Power supply too low Screen**	The power supply for the screen is too low.	Check the voltage on the machine. Check the cabling to the module.
A-501	**Power supply too high Screen**	The power supply for the screen is too low.	Check the voltage on the machine. Check the cabling to the module.
C-100	**CAN communication Screen**	CAN communication with the screen is no longer possible.	Check the cabling to the controller.
C-104	**CAN communication Joystick**	CAN communication with the joystick is no longer possible.	Check the power supply. Check the cabling to the controller.
C-106	**CAN communication MC050-110 Module 1**	CAN communication with module 1 is no longer possible.	Check the power supply. Check the cabling to the controller.
C-200	**CAN communication Engine**	CAN communication with the engine is no longer possible.	Check the cabling to the controller.
E-100	**Fault sensor Accelerator pedal**	The sensor for the accelerator pedal is defective.	Replace the sensor.
E-106	**Fault supply pressure sensor pump driving**	The feed pressure sensor for the Drive pump is defective.	Replace the feed pressure sensor.
E-107	**Fault supply pressure sensor pump Harvesting**	The feed pressure sensor for the Harvest pump is defective.	Replace the feed pressure sensor.
E-120	**Fault sensor Speed driving**	Fault sensor wheel motor.	Test the sensor. See 10.2.54 on page 186. Temporarily disable the sensor. See 8.2.67 on page 130. Replace the sensor as soon as possible. See 10.3.31 on page 217.

Nr.	Message / Fault	Explanation / Cause	Solution
E-121	**Fault sensor Speed cage**	Speed sensor for pressing chamber is defective.	Temporarily disable the sensor. Replace the sensor as soon as possible.
E-127	**Short-circuit feed pressure filter sensor Driving**	The cabling for the sensor of the Drive pump is short-circuited.	Check the cabling for the sensor.
E-128	**Open-circuit sensor feed pressure pump Driving**	The cabling for the feed pressure sensor of the Drive pump is open-circuited.	Check the cabling for the sensor. Replace the cabling.
E-129	**Short-circuit feed pressure filter sensor Harvesting pump**	The cabling for the sensor of the Harvest pump is short-circuited.	Check the cabling for the sensor.
E-130	**Open-circuit sensor feed pressure pump Harvesting**	The cabling for the feed pressure sensor of the Harvest pump is open-circuited.	Check the cabling for an open-circuit. Replace the cabling.
G-100	**Engine oil pressure too low**	The oil pressure for the engine is not correct.	See DEUTZ manual
G-101	**Level of hydraulic oil low**	Leaks	Check the hydraulic system for leaks See 10.2.43 on page 180. Check the oil level in the hydraulic tank, and top up as required. See 10.2.38 on page 177.
G-102	**Coolant level low**	Insufficient coolant in the engine	Top up the coolant for the engine. See DEUTZ manual.
G-103	**Temperature coolant engine high**	The temperature of the coolant for the engine is not correct.	See DEUTZ manual.
G-107	**Sensor(s) deactivated**	Sensors have been disabled via the control screen.	If the sensors are defective, you must replace them as soon as possible. Activate all sensors.
G-117	**Air filter clogged**	The air filter is dirty.	Clean or replace the air filter. See 10.2.18 on page 167 or 10.2.20 on page 169.
G-118	**Oil filter clogged**	The hydraulic filter is dirty.	Replace the hydraulic filter. See 10.2.50 on page 183.
G-119	**Blockage Driving feed pump**	The feed pressure filter for the Drive pump is dirty.	Replace the feed pressure filter for the Drive pump. See 10.2.15 on page 165.
G-120	**Blockage Harvesting feed pump**	The feed pressure filter for the Harvest pump is dirty.	Replace the feed pressure filter for the Harvest pump. See 10.2.15 on page 165
G-121	**Feed pressure too low Driving pump**	The feed pressure for the Drive pump is low.	Immediately stop the machine. Check the hydraulic system for leaks. Check the level of hydraulic oil. See 10.2.38 on page 177 Contact Depoortere NV.

Nr.	Message / Fault	Explanation / Cause	Solution
G-122	**Feed pressure much too low Driving pump**	The feed pressure for the Drive pump is much too low.	Immediately stop the machine. Check the hydraulic system for leaks. Check the level of hydraulic oil. See 10.2.38 on page 177 Contact Depoortere NV.
G-123	**Feed pressure too low Harvesting pump**	The feed pressure for the Harvest pump is low.	Immediately stop the machine. Check the hydraulic system for leaks. Check the level of hydraulic oil. See 10.2.38 on page 177 Contact Depoortere NV.
G-124	**Feed pressure much too low Harvesting pump**	The feed pressure for the Harvest pump is much too low.	Immediately stop the machine. Check the hydraulic system for leaks. Check the level of hydraulic oil. See 10.2.38 on page 177 Contact Depoortere NV.
G-128	**Passenger's seat sensor not detected**	The driver is present on the driver's seat The sensor in the driver's seat is defective.	Sit in the driver's seat. Replace the sensor.
G-136	**Saturation DPA**	The speed of the belts can no longer follow the driving speed.	Drive slower or increase the DPA.
G-137	**Pressing chamber not locked (balancing arm low)**	The balancing arm is not in the start position.	Check that something is not obstructing the balancing arm. Check the sensor and the cabling. Test the sensor. See 10.2.53 on page 185. Temporarily disable the sensor. See 8.2.67 on page 130. Replace the sensor. See 10.3.31 on page 217.
G-138	**Pressing chamber not locked (pressing chamber closed)**	The pressing chamber is not closed.	Check that something is not obstructing the closure. Open the pressing chamber, then close it again. Check the sensor and the cabling. Test the sensor. See 10.2.53 on page 185. Temporarily disable the sensor. See 8.2.67 on page 130. Replace the sensor. See 10.3.31 on page 217.

Nr.	Message / Fault	Explanation / Cause	Solution
G-139	**Ropes not cut**	The rope is not cut.	Cut the rope yourself as close as possible to the bale. If this occurs often, you must check the knives, or perform a calibration of the binding system. See 10.2.55 on page 186. See 8.2.48 on page 124. Check that the fingers of the binding system are correctly positioned. See 11.8 on page 231.
G-140	**Pressing chamber open position not detected**	The pressing chamber is not fully open. The signal has not been received.	Check if something is obstructing the opening. Close the pressing chamber and open it again. Check the sensor and the cabling. Test the sensor. See 10.2.53 on page 185. Temporarily disable the sensor. See 8.2.67 on page 130. Replace the sensor. See 10.3.31 on page 217.
G-141	**Pressing chamber closed position not detected**	The pressing chamber is not fully closed. The pressing chamber has not closed within the programmed time. The signal has not been received.	Check that something is not obstructing the closure. Open the pressing chamber, then close it again. Check the sensor and the cabling. Test the sensor. See 10.2.53 on page 185. Temporarily disable the sensor. See 8.2.67 on page 130. Replace the sensor. See 10.3.31 on page 217.
G-500	**Problem writing date/time**	A communications problem exists with the “Real Time Clock” electronic component..	Contact Depoortere NV.
G-501	**Problem with Initialisation Video Switch**	A communications problem exists with the electronic component for managing the video inputs. The control screen is not used for video. This fault message is also not applicable.	Not applicable.
G-503	**Communication fault Limited operation**	The screen does not have access to the settings for the controller.	Contact Depoortere NV.
S-100	**Control problem pump Driving**	There is a fault in the control for the Driving pump.	Check the values on the fault-finding screen. See 8.2.59 on page 127
S-102	**Control problem pump Harvesting**	There is a fault in the control for the Harvesting pump.	Check the values on the fault-finding screen. See 8.2.59 on page 127

See also

- 11.5 Overview DEUTZ engine faults on page 229

11.5 Overview DEUTZ engine faults

An overview of the most common engine faults from DEUTZ is provided below.

Code	Fault message	Explanation	Possible cause	Possible solution
SPN111 FMI1	Coolant level too low.	Level of coolant for the engine is too low	Coolant has evaporated or there is a leak.	Top up level of coolant for the engine.
SPN97 FMI12	Water in fuel level prefilter; maximum value exceeded	Too much water present in water separator filter fuel.	Too much condensation in the fuel tank. Quality of fuel is not optimal.	Drain the water.
SPN107 FMI0	Air filter differential pressure; air filter cologged)	The air filter for the engine is dirty.	Too much dust in the air filter. Air filter not cleaned frequently enough.	Clean air filter or replace air filter.
SPN94 FMI1	Low fuel pressure	Low fuel pressure.	Not enough fuel.	Check the fuel level and, if necessary, top it up. Check the fuel feed circuit to the engine.
SPN524132 FMI0	Fuel low pressure upstream fuel low pressure pump	Low fuel pressure.	Not enough fuel to the fuel pump. Fuel pump defective.	Check the fuel level and, if necessary, top it up. Check the fuel feed circuit to the engine.
SPN100 FMI1	Low oil pressure	Low oil pressure.	Not enough oil. Insufficient suction from the oil.	Check the oil level and, if necessary, top it up. Check the engine for an oil leak. Check the oil filter and, if necessary, replace it.
SPN110 FMI0	High coolant temperature	Koelvloeistoftemperatuur te hoog	Te weinig koelvloeistof. Vervuilde radiator. Defecte ventilator.	Controleer het koelvloeistofniveau. Reinig de radiator. Controleer de werking van de ventilator.

You can consult the comprehensive overview of engine faults online by going to https://serdia.deutz.com/fileadmin/contents/shared/Zwischenspeicher/DTCList_MD1_DOC_DPF_DE_EN.pdf or via:

1. Go to serdia.deutz.com.
2. Select **SerDia 2010**.
3. Select the **DTCList_MD1_DE_EN.pdf** file.

See also

- 11.4 Fault-finding table messages on the control screen on page 223

11.6 Rectifying a rope break

We can distinguish between 2 types of rope break:

- In most cases, one end of the broken rope will already be transported with the bale.
- Both ends are still visible in the machine and accessible.

Executor: operator

1. Switch OFF the machine safely.

2. Feed the broken rope through all rope guides.
3. Perform one of the following actions;
   - In the event of one end of the rope no longer being visible because it has already been transported in the bale: provide enough rope and place it onto the flax, so that the rope can be transported by the flax. During the scutching, this will result in a delay during the unrolling of the flax.
   - In the event of both ends of the broken rope still being visible and accessible, Tie the ends of the ropes together using a square knot.

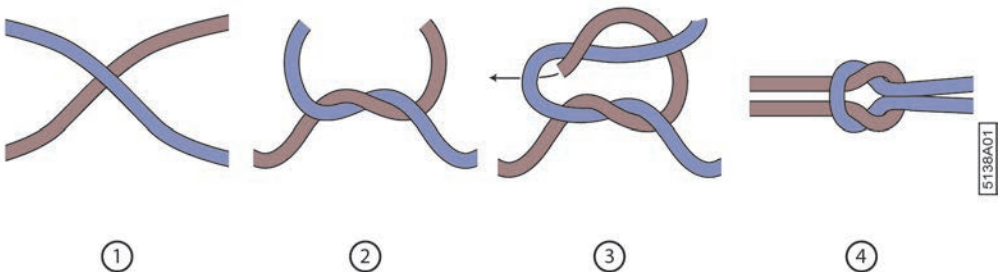


Fig. 165: Tying a square knot

11.7 Adjusting the opening speed of the needles for the binding rope system

You have to adjust the opening speed for the needles so that they correctly go to the various positions without skipping a position.

WARNING
This procedure must be performed by the operator and the maintenance technician. This procedure requires extremely precise monitoring of the steps and optimal communication between these 2 people. If the steps are not monitored extremely precisely, or miscommunication occurs, this can result in serious injury or even in death.

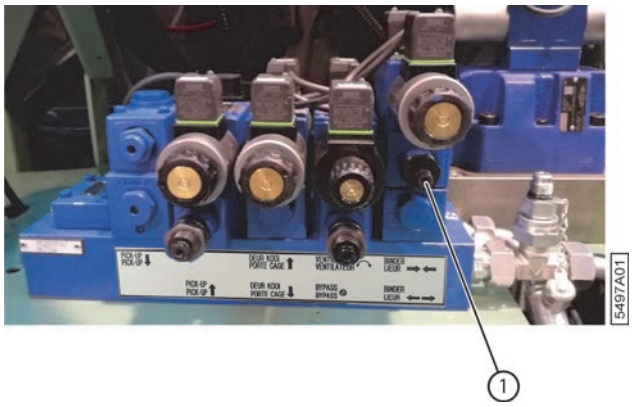


Fig. 166: Adjusting the speed of the needles for the binding rope system

1. Test the various positions of the needles. See 8.2.49 Testing the positions of the needles of the binding rope system on page 124.

   If a needle skips a position, as a result of too abrupt movement of the needle, or the needle moves too slowly to the next position, you must adjust the speed of the needles.
2. Adjust the opening speed of the needles by adjusting the valve (1) at full power.
   - Screw the adjusting bolt in to decrease the speed

- Screw the adjusting bolt out to increase the speed

11.8 Checking the position of the finger

At the moment, there are 2 types of fingers. The procedure is only applicable if you use the fingers as illustrated below. If a finger is incorrectly installed at the top, this can result in problems during binding. You cannot install the other type of finger in the topmost position.

Fig. 167: Check the position of the block of the finger.

1. Check that the block is installed in the lowermost position.
2. Check that the block optimally seals with the edges of the needle.
3. Check whether one of the blocks is equipped with a longer bolt (1) that acts as a stop, so that the needles do not hit each other when they close.

11.9 Checking the stop for deformation

The stop (6) monitors the size of the bale and thus controls the tension of the rope tensioning system. Initially, this stop is fully down (small amount of tension on the rope tensioners) and as the bale becomes larger, this stop is raised (large amount of tension on the rope tensioners). When the bale is ejected from the pressing chamber, this stop moves downwards against the lever of the rope tensioning system. In the course of time, this stop (6) can become deformed. This causes incorrect tension on the rope tensioners, and problems with the rope.

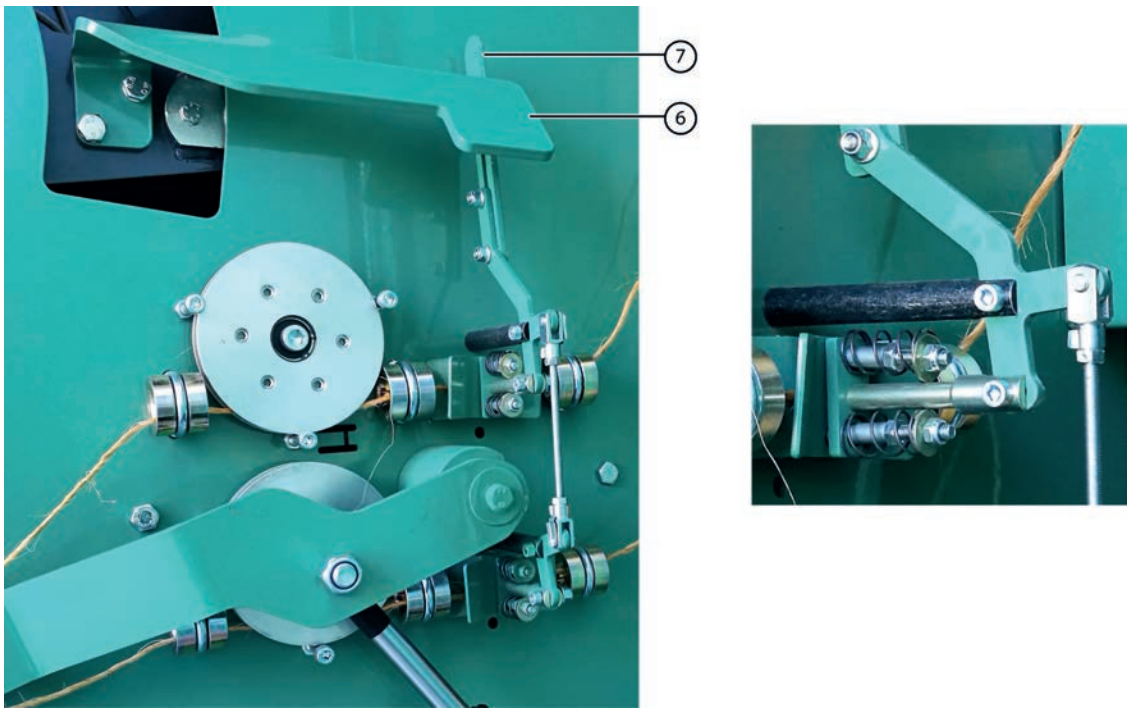


Fig. 168: The lever of the rope tensioning system

1. Check that the stop (6) is not deformed.

   If the stop is deformed, this causes incorrect tension on the rope tensioners. The stop can also be so deformed that the lever (7) no longer moves behind the stop, but instead moves in front of the stop.
2. If the stop is deformed, correct the deformation or install a new stop.

12 Taking out of service and scrapping

12.1 Taking the machine out of service

1. Activate the parking brake.
2. Use the ignition key to switch OFF the machine.
3. Remove the ignition key.
4. Wait at least 3 minutes after the engine has stopped.
5. Use the battery key to switch OFF the battery, and remove the battery key.

12.2 Scrapping the machine

1. Take the machine out of service. See 12.1 Taking the machine out of service on page 233.
2. Remove the battery.
3. Remove all hazardous substances from the machine. See 4.7 Hazardous substances on page 76.
   - Remove and drain the AdBlue tank.
   - Drain the hydraulic tank.
   - Remove and drain the windscreen washer reservoir.
   - Drain the fuel tank.
   - Lubricating grease.
   - Engine oil, see manual supplied for DEUTZ engine.
   - Engine coolant, see manual supplied for DEUTZ engine.
   - Airco coolant, to be removed by a suitably qualified and approved company.

   WARNING
   You may NOT drain the airco coolant yourself. Strict European regulations are applicable to all work relating to air conditioning.
4. Remove all hydraulic pipes and hydraulic filters and collect all oil.
5. Remove all lubrication pipes.
6. Remove all electrical cables and electrical components.
7. Remove all plastic components.
8. Remove the wheels and remove the rubber tyres.
9. Dispose of the various types of materials in accordance with the current local statutory regulations.

12.2.1 Removing and draining the AdBlue tank

Carefully read the Safety Information Sheet for the AdBlue used.

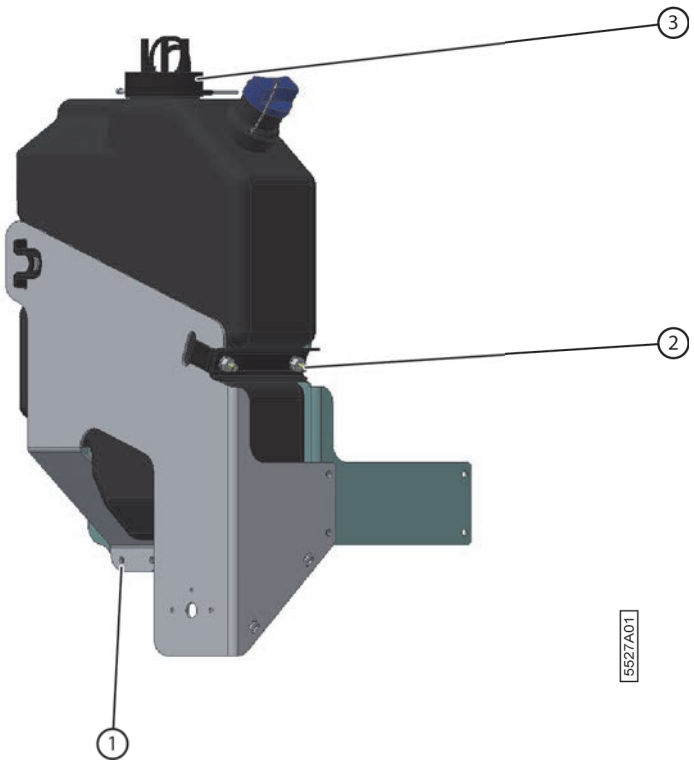


Fig. 169: Removing AdBlue tank

1. Disconnect all connections (3) to the tank.
2. Disconnect the plate (1) from the chassis by unscrewing the bolts.
3. Remove the bracket (2).
   The plate (1) can then be completely disconnected.
4. Remove the tank from the machine.
5. Dispose of the AdBlue liquid in accordance with the current local statutory regulations.

12.2.2 Draining the hydraulic tank

The drain plug is located underneath the hydraulic tank and above the mudguard for the right-hand wheel.

Carefully read the Safety Information Sheet for the hydraulic oil used.

Drain the hydraulic tank when the oil is hot, then it flows better.

ENVIRONMENT
Spilled liquid must be removed in accordance with the regulations for the liquid and in accordance with the current local statutory regulations.

NOTE
When scrapping the machine, it is easier to drain the hydraulic oil if you first remove the rear right-hand wheel and the mudguard.

Required equipment:

- drain tray with minimum capacity of 150 litres
- drain hose with a minimum inside diameter of 3/4” (20 mm).
- cleaning rags

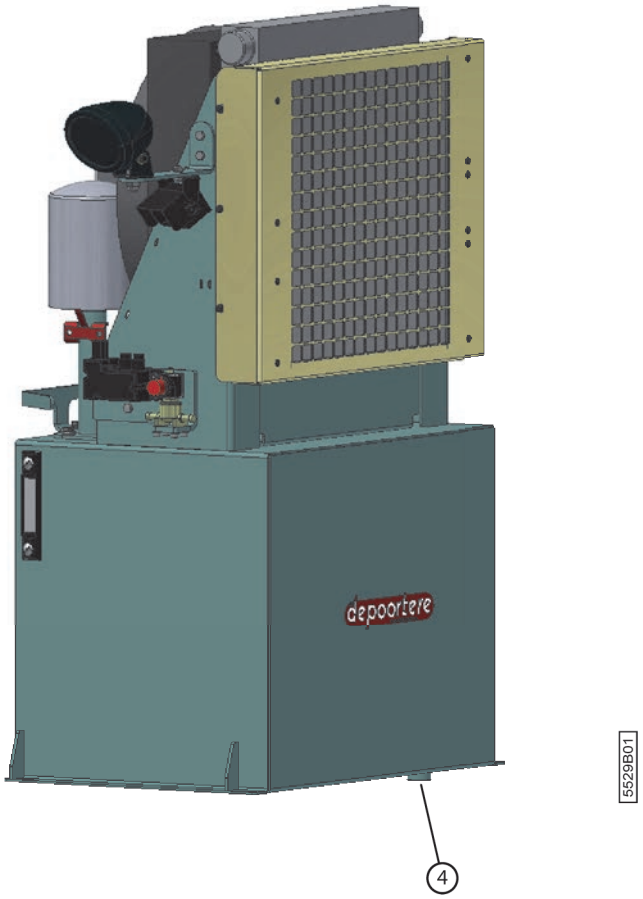


Fig. 170: Draining hydraulic tank

1. Lower the pick-up and close the pressing chamber.
   This action removes all hydraulic oil from the cylinders.
2. Place the drain tray as close as possible to the hydraulic tank.
3. Loosen the drain plug (4), push the hose over the drain plug and collect the hydraulic oil.
4. Remove the hydraulic filters from the pumps and collect the hydraulic oil.

See also

- 2.2.24 The hydraulic tank on page 41

12.2.3 Draining the fuel tank

Carefully read the Safety Information Sheet for the fuel used.

Required equipment:

- Drain tray with minimum capacity of 350 litres.

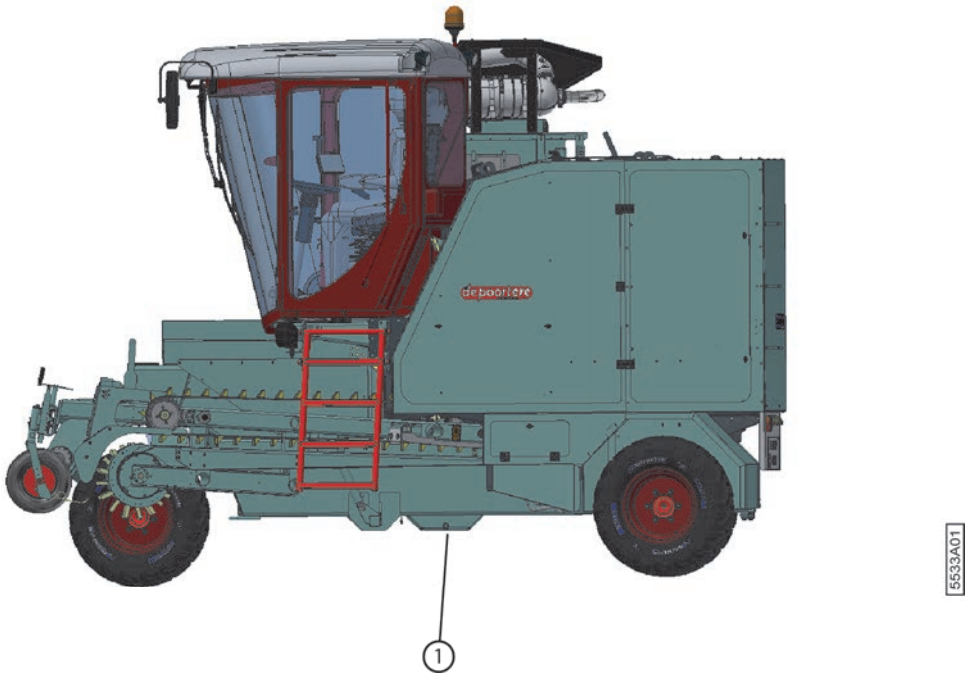


Fig. 171: Draining fuel tank

1. Place the drain tray underneath the drain plug (1) of the fuel tank.
2. Loosen the drain plug and collect the fuel.

ENVIRONMENT
Spilled liquid must be removed in accordance with the regulations for the liquid and in accordance with the current local statutory regulations.

13 Annexes

13.1 Guarantee conditions

See sales agreement

13.2 Liability

See sales agreement

13.3 EC declaration

EC DECLARATION OF CONFORMITY

IN ACCORDANCE WITH ANNEX II.1.A. OF THE DIRECTIVE 2006/42/EC

This declaration relates exclusively to the machine in the condition in which it was placed on the market, and excludes components that are added and/or operations performed subsequently by the end user.

Business name and full address of the manufacturer:

Depoortere NV	Kortrijkseweg 105 8791 Beveren-Leie Belgium

Name and address of the person authorised to compile the technical file. The person stated below is domiciled in the European Community:

Rik Depoortere	Kortrijkseweg 105 8791 Beveren-Leie Belgium

Description and identification of the machine:

Name	Self-propelled flax baling machine
Function	Rolling-up of the flax
Type	ZORHY

This machine satisfies all of the provisions of the directives stated below:

2006/42/EC	Directive dated 17 May 2006 relating to machines and to the amendment of directive 95/16/EC (revision)
2014/30/EU	Directive dated 26 February 2014 relating to the harmonisation of the legislation for the member states pertaining to electromagnetic compatibility (revision)

Place: Beveren-Leie Date of drawing up the declaration: 1/01/2022	**Identity and signature** of person who, on behalf of the manufacturer or his proxy, is authorised to draw up the declaration  Managing director Rik Depoortere

13.4 Specific certificates and forms

Not applicable.

13.5 Initial settings

13.5.1 Initial settings for the control screen

In **SENSORS** parameter group:

Parameters	Initial value
Deactivate open cage sensor	0
Deactivate closed cage sensor	0
Deactivate sensor balancing arm low	0
Deactivate rope-break sensor 1	0
Deactivate rope-break sensor 2	0
Deactivate Driving speed sensor	0
Deactivate cage speed sensor	0
Deactivate hydraulic oil level sensor	0
Minimum gross value binder	Value after calibration of the binding system
Maximum gross value binder	Value after calibration of the binding system

In the **HARVEST** parameter group:

Parameters	Initial value
Delay closing cage	1 s
Delay automatic binding	3 s
Delay ropes alarm	20 m
Speed emptying pick-up	70%
Speed unblocking pick-up	50%
Speed cage binding	100%
Speed cage cutting ropes	50%
Speed cage ejecting bales	0%
Stop binding rope-break	**YES**
Emptying pick-up before binding	**NO**
Sensitivity rope-break alarm	2
Threshold value frequency opening cage	5
Speed rope opening pressing chamber	5
Change increment flax width	10

In the **CONTROL BINDER** parameter group:

Parameters	Initial value
Number of revs. position P0	3
Number of revs. position P1	4
Number of revs. position P2	2.5
Number of revs. position P cutting	1
Opening binder position PO	5%

Parameters	Initial value
Opening binder position P1	25%
Opening binder position P2	55%
Opening binder position P cutting	90%

In the **ENGINE PROTECTION** parameter group:

Parameters	Initial value
Maximum engine revs./min.	2600 revs./minute
Idling engine speed	800 revs./minute
Engine speed ejecting bale	2000 revs./minute

13.6 User manual diesel engine

See supplied user manual diesel engine.

13.7 Overview of the filters

Cabin

Fig. 172: Air filter in the cabin

Reference Depoortere NV:	Description	More information
0406020210	Air filter	Also see 10.2.17 Checking the air filter on page 167.

Air filter for the engine.

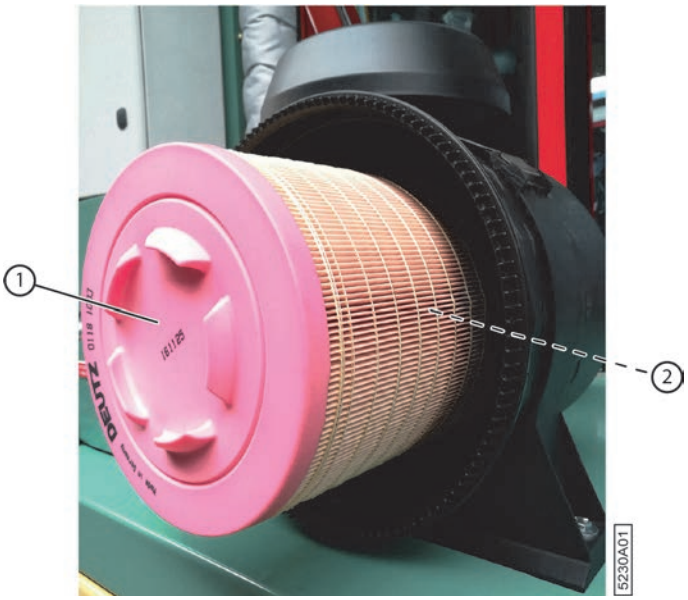


Fig. 173: Main element and safety element of air filter

Nr.	Reference Depoortere NV:	Description	More information
1	0500300095	Main element of air filter	See user manual for the new part
2	0500300121	Safety element of air filter	The safety element is installed in the main element.

Engine compartment

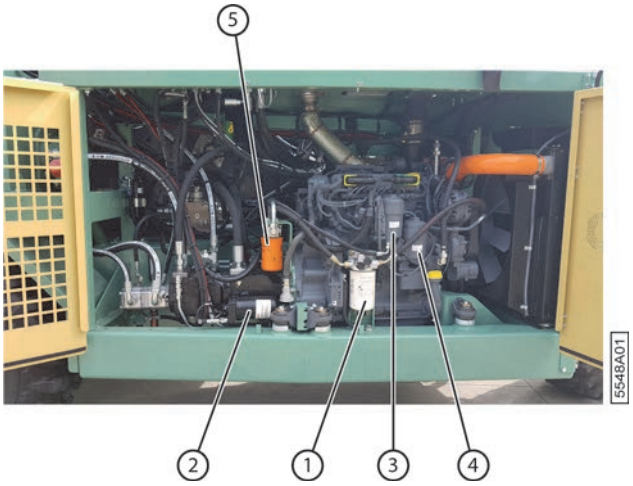


Fig. 174: Filters in het engine compartment

Nr.	Reference Depoortere NV:	Description	More information
1	0500200120	Fuel pre-filter	See 13.6 on page 240
2	1211100005	Feed pressure filter for the Drive pump	See 10.2.15 Replacing the feed pressure filters on page 165
3	0500200116	Fuel filter	See 13.6 on page 240
4	0500100100	Lubricating oil filter	See 13.6 on page 240
5	1211100010	Feed pressure filter for the Harvest pump	See 10.2.15 Replacing the feed pressure filters on page 165

Fuel tank

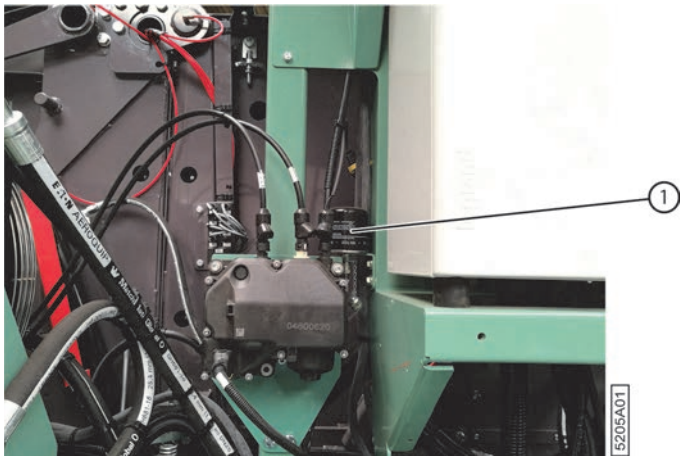


Fig. 175: Venting filter for fuel tank.

Nr.	Reference Depoortere NV:	Description	More information
1	0500200040	Venting filter for fuel tank	

AdBlue

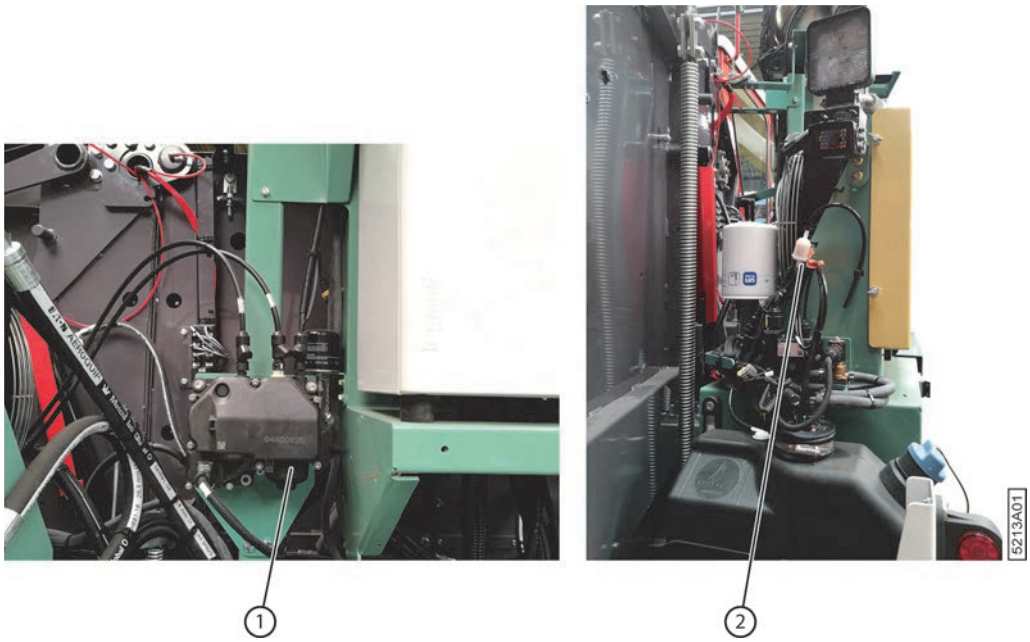


Fig. 176: Location of the AdBlue filters

Nr.	Reference Depoortere NV:	Description	More information
1	0500400010	AdBlue pump filter	See DEUTZ manual.
2	0500400020	Venting filter AdBlue tank	This filter is mounted on the rear of the plate. Open the door of the engine compartment to access this filter.

Hydraulic tank

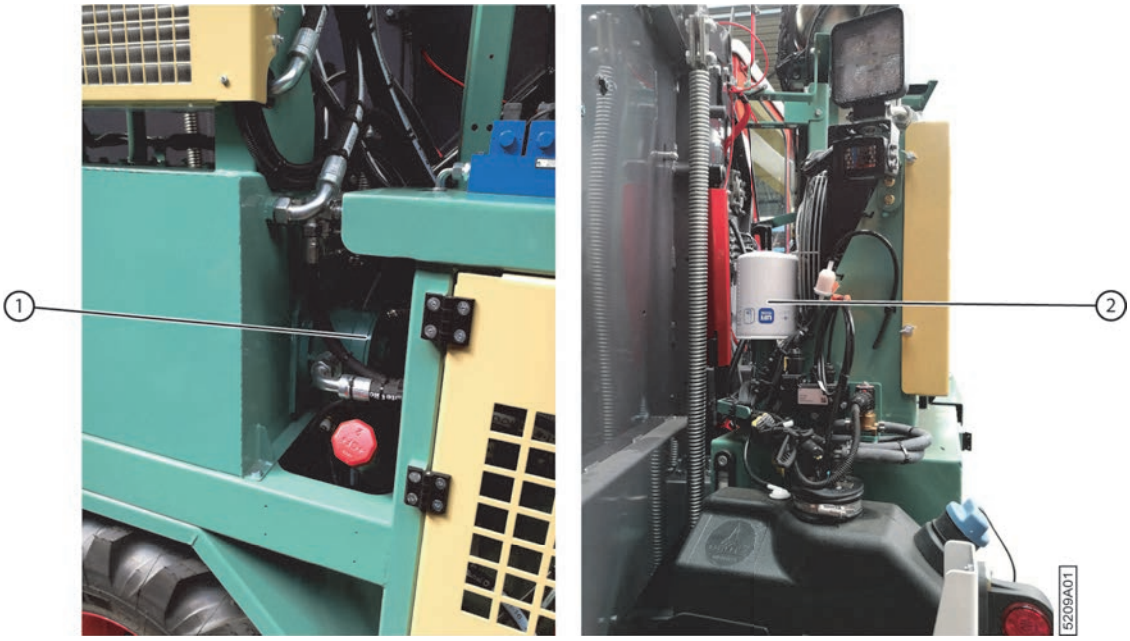


Fig. 177: Filters on the hydraulic tank

Nr.	Reference Depoortere NV:	Description	More information
1	1210100000	Filter element Arlon 10µ	The suction filter filters impurities out of the hydraulic oil before this oil reaches the hydraulic tank
-	0234515460	O-ring Ø 154.00 x 6.00 SHORE 70	This O-ring must be installed when the suction filter is replaced. Do not reinstall the O-ring supplied for the suction filter when replacing the filter element!
2	1210100050	Aerator	The aerator filters dust from the ambient air when compensating for the volume of required hydrauilc oil.

13.8 Spare parts list

The spare parts list is supplied separately.

13.9 Maintenance sheet

Date	Executor	Maintenance performed

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