Operating manual

RESPIRO R8 compact

EN.BA.R8.025.1

original operating manual

REITER
www.reiter-respiro.com

Table of content

CAUTION!

Very important

Retighten all screw connections after the first 10 hours of operation and a further check after the first 50 hours

For safety reasons, check the wheel nuts regularly before each starting out.

1. General

Please read this operating manual carefully and keep it in the vicinity of the pick-up belt rake. This will allow you to refer to it at any time for information regarding your safety and proper use of the machine.

1.1. Product name and model designation:

Product name: RESPIRO

Model designation: R8 compact

1.2. Information on the manufacturer:

name: RT Engineering GmbH

adress: Eben 5a, 4716 Hofkirchen/Trattnach

email: office@reiter-respiro.com

phone: +437248/66717

1.3. Target group:

- Farmers
- Contractors and their drivers
- Dealers and workshops Employees

1.4. CE mark:

CE

The CE mark to be affixed by the manufacturer informs others about the machine's conformity with the provisions of the Machinery Directive and other relevant EC Directives.

EG Declaration of Conformity (see appendix)

By signing the EC Declaration of Conformity, the manufacturer declares that the machines placed on the market are in compliance with all relevant health and safety requirements.

1.5. Declaration of conformity:

www.reiter-respiro.com

EG declaration of conformity

CE

We

RT Engineering GmbH
Eben 5a, A-4716 Hofkirchen an der Trattnach

hereby declare, as the manufacturer of the product named below, under our sole responsibility, that the

machine: belt rake RESPIRO R8 compact
series: 500

to which this declaration relates complies with the following relevant provisions:

- Directive 2006/42/EC (Machinery Directive)

The undersigned managing director is authorised to compile the technical documentation.

Hofkirchen an der Trattnach
19.12.2023

Thomas Reiter
managing director

2. Important information for your safety:

The RESPIRO pick-up belt rake is built according to the recognized safety rules. Nevertheless, hazards can arise during use. For this reason, the following safety instructions and the special warnings in the individual chapters must be observed.

2.1. Intended use:

- exclusively for the normal use in agricultural work
- for raking different corps
- in compliance with the prescribed maintenance and repair work
- Any non-agricultural use in prohibited

2.2. Symbols and warnings:

In this operating manual there is a warning for every activity that involves a risk. Be sure to follow these warnings to the letter. Doing so will allow you to avoid damage to property as well as injuries, which in the worst case could even be fatal.

The warnings use signal words that have the following meanings:

DANGER

Failure to heed this warning will result in death or severe injury.

WARNING!

Failure to heed this warning could result in death or severe injury.

CAUTION!

Failure to heed this warning could result in minor injuries and/or damage to property.

2.3. Safety instructions:

Please read this operating manual carefully and keep it in the vicinity of the pick-up belt rake. This will allow you to refer to it at any time for information regarding your safety and proper use of the machine.

2.4. Additional instructions:

Information

This note indicates tips and useful information and provides assistance in solving a problem.

Environment

This note indicates instructions for the proper handling of environmentally hazardous substances.

2.5. Warning signs:

2.5.1. Meaning

Group warning signs

1) Maintain sufficient distance.
2) Never reach into the crush hazard area while the parts there are capable of moving.
3) Do not touch moving machine parts, never climb on to the conveyor belt.
4) Wait until the machine has come to a complete standstill.

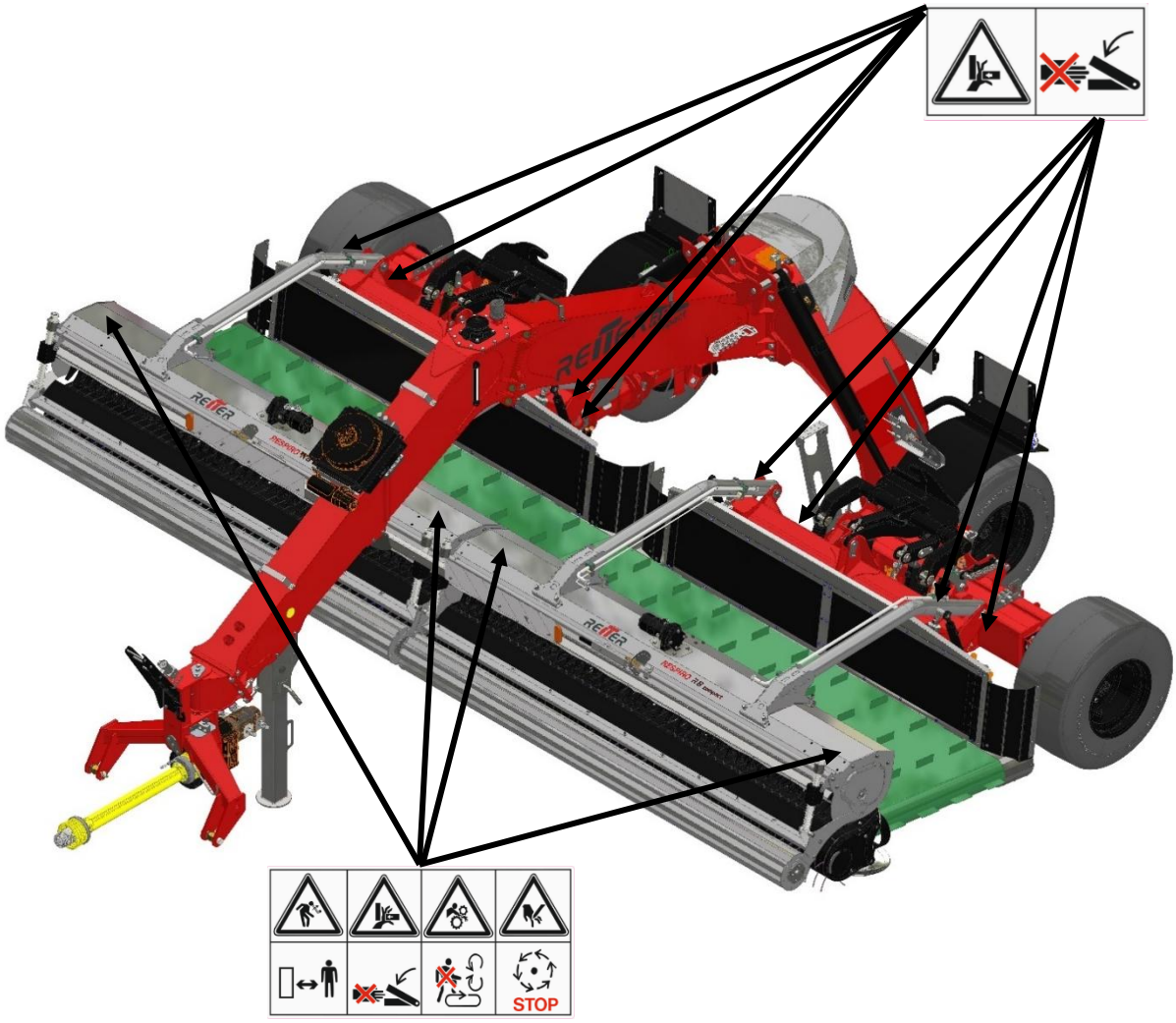
Switch off the engine and remove the key before performing maintenance and repair work.

Do not stand in the swivel range of the rotor while the machine is in operation.

Never step into the driving zone of the tractor.

Never reach into the crush hazard area while the parts there are capable of moving.

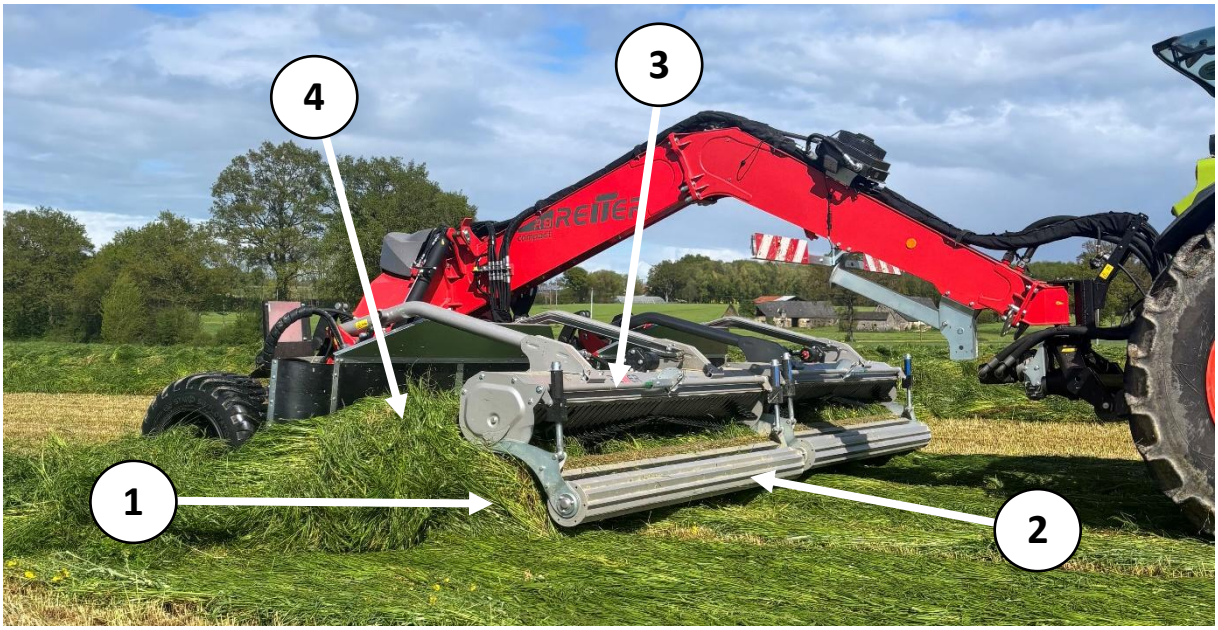
2.5.2. Position on the machine:



3. Product description:

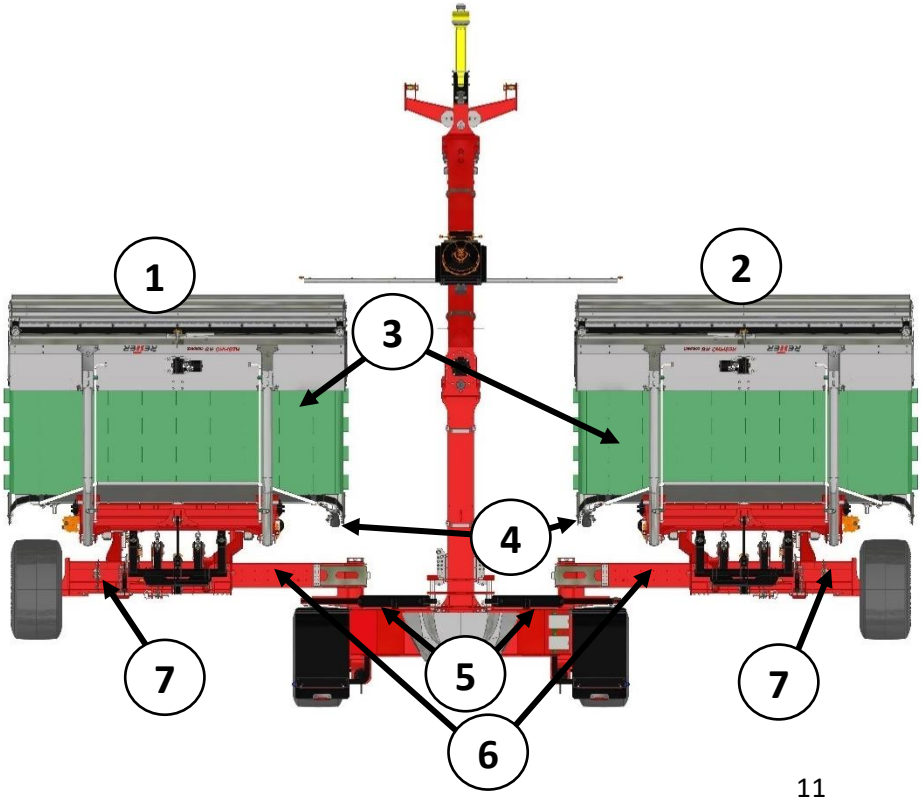
3.1. General function of the machine:

The RESPIRO R8 compact consists of 2 3.00 m working units with a 1000 mm wide belt.
The crop is lifted from the ground via the pick-up ①. The roller crop press ② presses the crop against the pick-up and guides the crop flow to the rotor ③. The driven rotor conveys the crop evenly onto the conveyor belt ④. The conveyor belt allows the crop to be deposited either to the left or right of the machine. This allows the R8 to deposit a centre swath, a side swath on the left or right and 2 night swaths on the left or right.

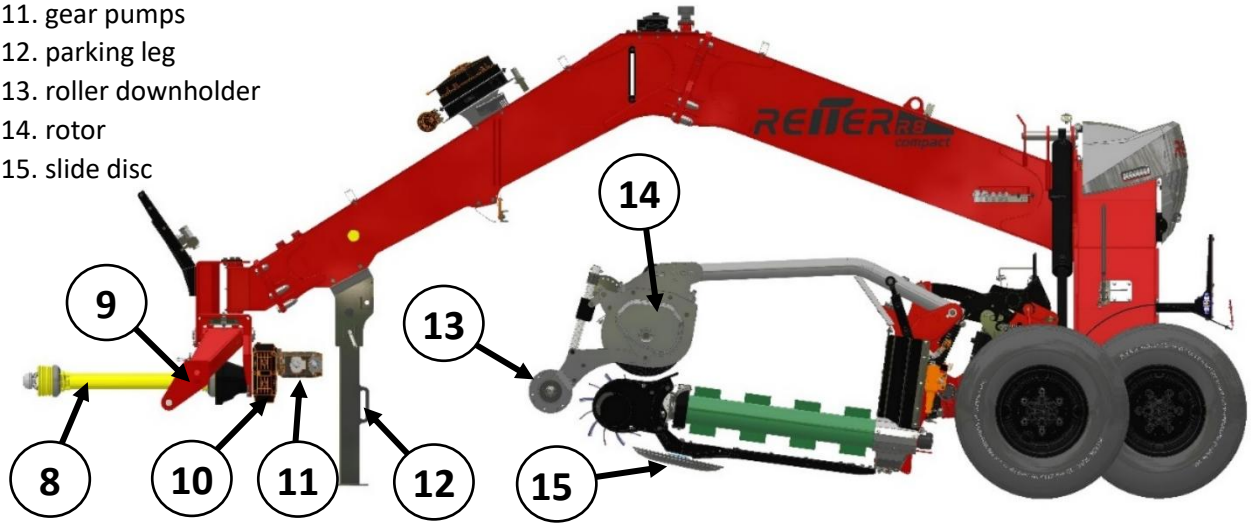


3.2. Description and definition:

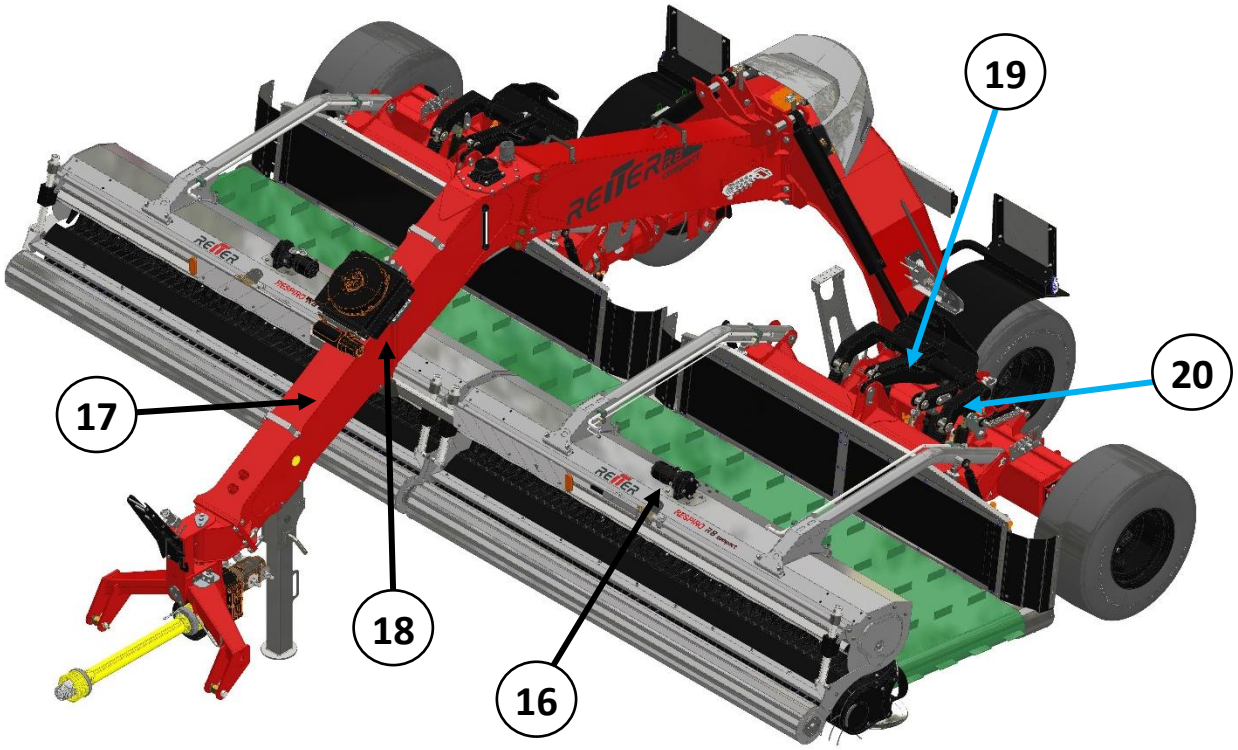
1: left working unit
2: right working unit
3: conveyor belt
4: belt drive
5: boom cylinder
6. boom
7. slide



8. shaft
9. lower link rocker
10. transmission gearbox
11. gear pumps
12. parking leg
13. roller downholder
14. rotor
15. slide disc



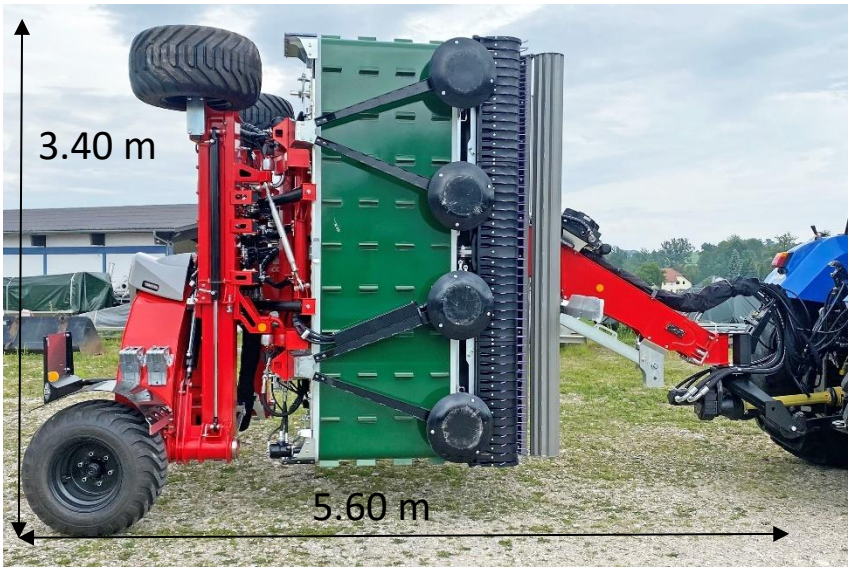
16: rotor drive
17. hydraulic oil tank
18. oil cooler
19. lifting linkage
20. spring tensioner



3.3. Technical data:

	RESPIRO R8 compact
Mounting	lower linkage cat. II
Working width centre swath [m]	6.5 - 8.0
Swath width [m]	0.5 - 2.0
Working width side swath [m]	6.0 + swath
Transport length [m]	5.60
Transport width [m]	2.96
Transport heigth [m]	3.40
Tractor requirement [kW/hp]	73/100
PTO speed [rpm]	540/ 750 / (1000)
Total weight [kg]	4800
Tyres	480/45-17
Tire pressure [bar]	1.6

3.4. Transport measurements:



3.5. Type label:

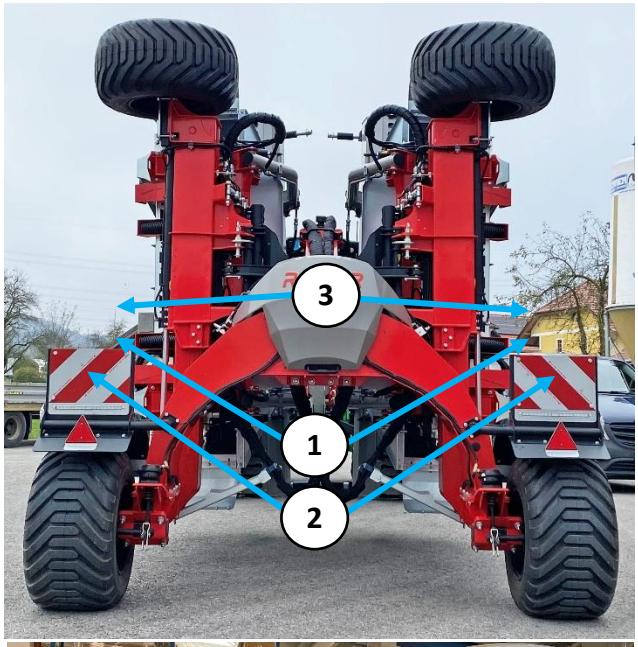
Please note here the type designation and the serial number of your machine. This information must be provided for spare parts orders or warranty requests.

Model/type: RESPIRO R8 compact

3.6. Equipment and road safety regulations:

Equipment that complies with regulations and ensures road safety is either fitted ex works or can be fitted by your sales partner. Always comply with the applicable regulations for the maximum permitted travelling speed for tractors

with implements on public roads.
Irrespective of this legally permissible maximum speed maximum speed, we recommend that you never exceed the speed of 25 km/h (15 mph) for your safety and the safety of third parties.



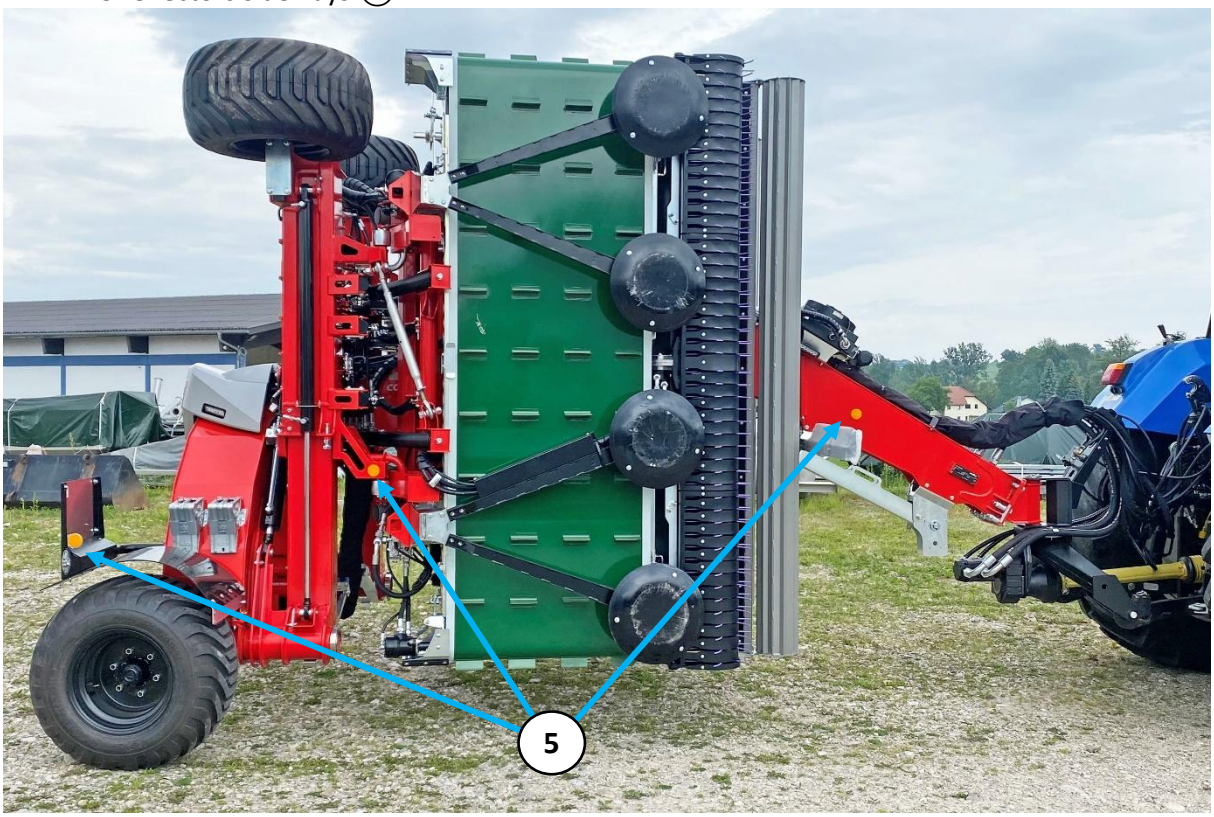
The mounted road safety device consists of the following elements:

Rear mounted:

- 2 lights ① (red tail light / brake light / direction indicator).
- 2 red triangular reflectors②
- 2 retroreflective warning signs ③
- Optional licence plate holder ④ with lighting

Side mounted:

- 3 reflectors sideways ⑤



Front mounted:

- 2 retroreflective warning signs
- 2 position lights with white reflectors

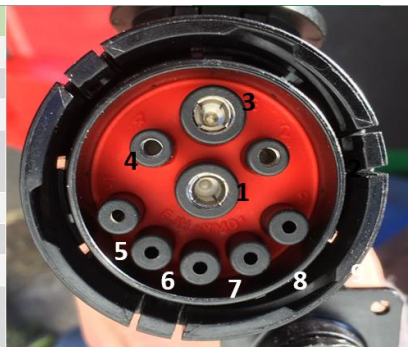
CAUTION!

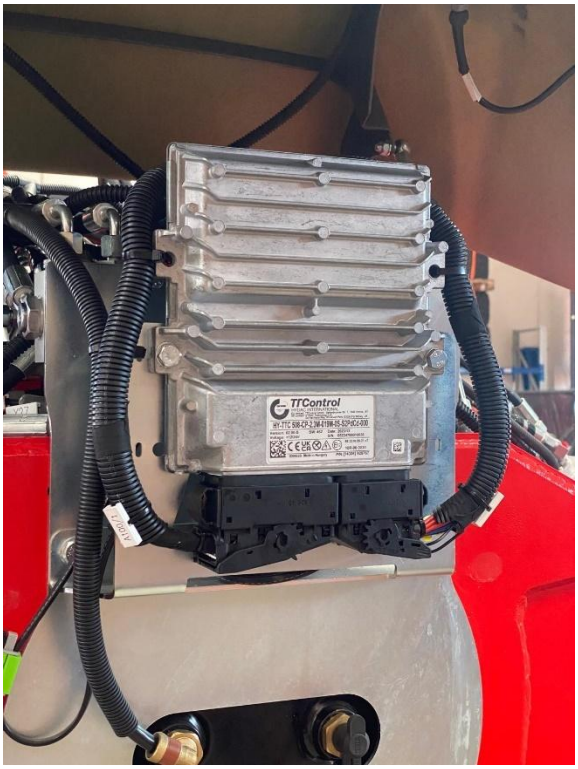
It is essential to replace the warning signs and lights in case of wear or damage.

3.7. Electronic / sensors:

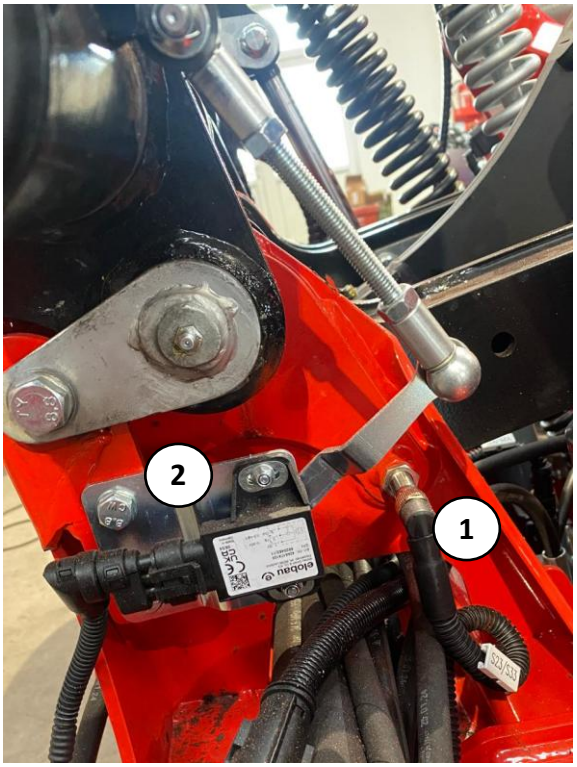
Power is supplied via an ISOBUS connection of the tractor.

PIN	desigantion	colour	description	voltage	profil/comment
1	GND	black	mass	mass	6 mm²
2	ECU_GND	black	mass control units	mass	2,5 mm²
3	PWR	red	power supply	12 V	6 mm²
4	ECU_PWR	red	power supply of the control unit	12 V	2,5 mm²
5	TBC_DIS	-	control termination		bridge
6	TBC_PWR	red	power supply termination	12 V	
7	TBC_RTN	black	mass termination	mass	
8	CAN_H	yellow	data transmission		twisted
9	CAN_L	green	data transmission		





central job computer



inductive sensor ① / angle sensor ②

CAUTION!

Magnetic fields can damage the electronics of the job computer.

Electromagnetically actuated valves can no longer switch.

Do not bring magnets near the job computer!

Always disconnect the job computer during welding work on the machine!!!

3.8. Hydraulic

3.8.1. On board hydraulic

3.8.1.1. Gear pump

The working units are driven via the PTO shaft, which drives two gear pumps via a spur gear.
Preselection of the 540/750/(1000) PTO shaft.

CAUTION!

Hydraulic oil used: HLP 46
Regularly check the oil temperatures

Use the lowest system speed to enjoy all benefits:

- Less wear of all components
- Lower oil heating
- Lower power requirement
- Higher crop care; less leaf loss
- Lower forage contamination and less foreign objects in the crop.

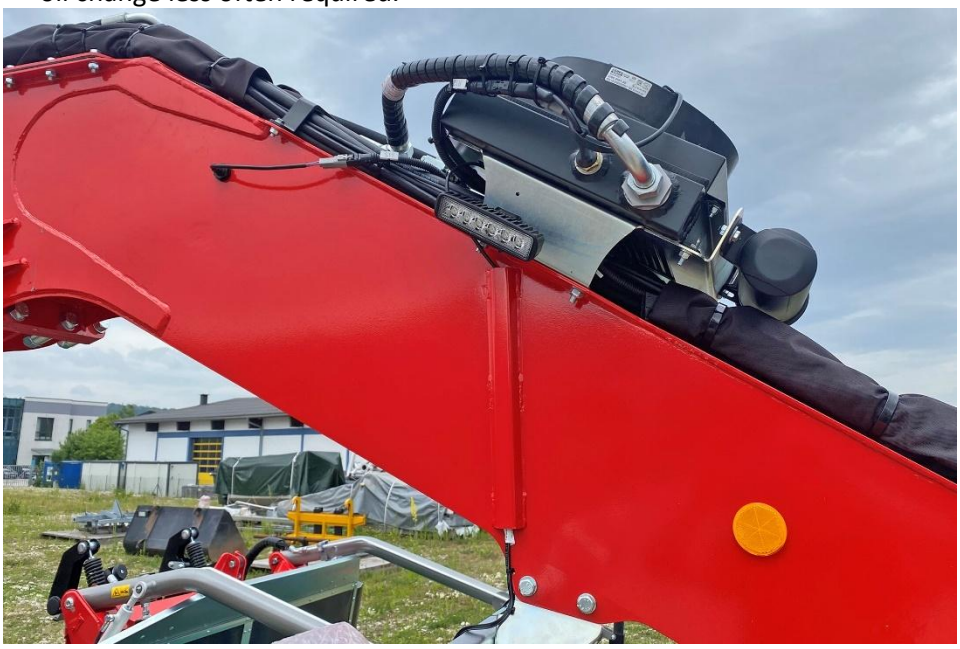
The oil tank contains approx. 180 litres of hydraulic oil.

CAUTION!

Overheating of the hydraulic oil.
Gaskets on valves and hydraulic elements can be damaged.

3.8.1.2. Oil cooler

Hydraulic cooler with temperature sensor and oil return in the return filter
As soon as the machine is operated in the field, the cooler always runs.
Low oil temperature => better lubrication properties => long service life of all hydraulic components => oil change less often required.

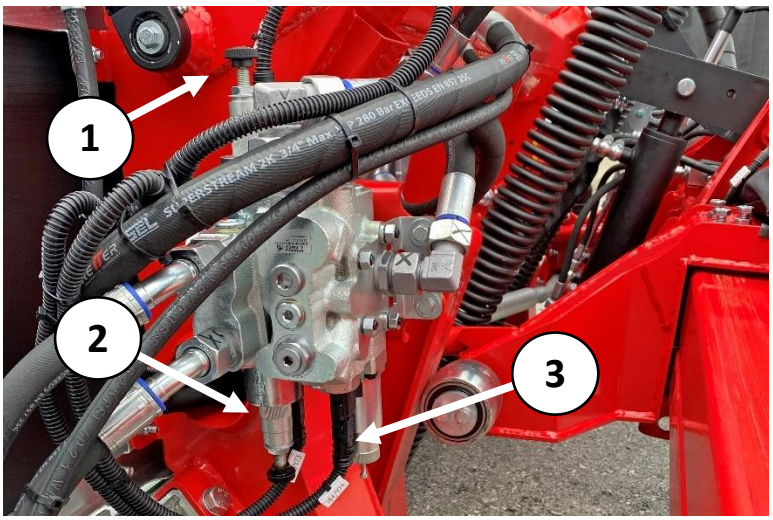


3.8.1.3. Hydraulic belt valve on right and left working unit:

Hydraulic belt valve: Control of the belt direction left ① and right ② as well as the belt speed ③.

Notbedienung falls elektromagnetische Ventile nicht funktionieren:

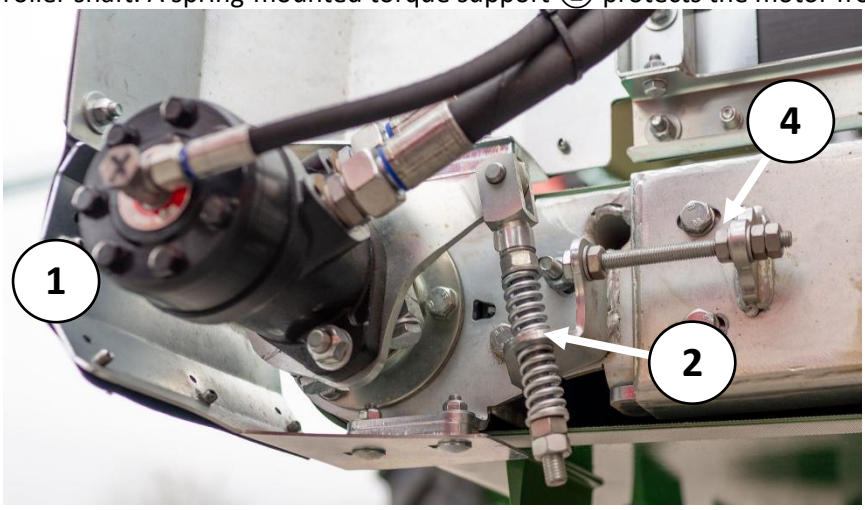
- Mechanical emergency confirmation of the hydraulic main module in the event of a wire damage (valves can no longer be operated by electromagnetic pressure).
- Turn the screw ① or ② clockwise according to the desired belt direction. Select the belt speed via the screw ③: turn further inward clockwise => the belt runs faster.



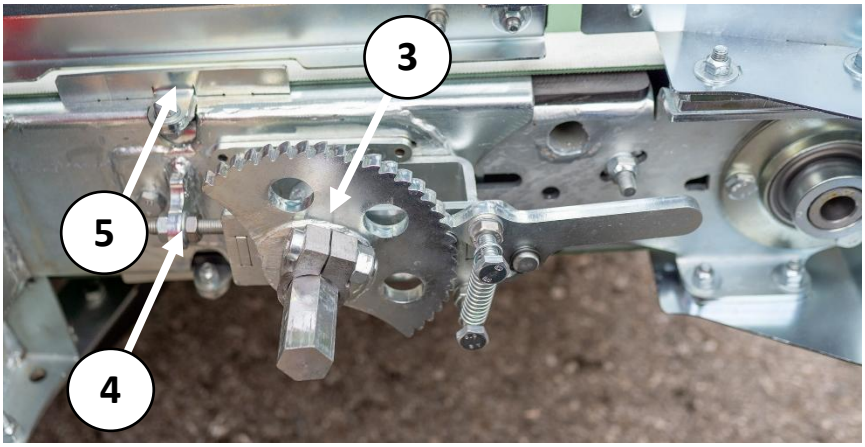
Belt valve

3.8.1.4. Belt drive:

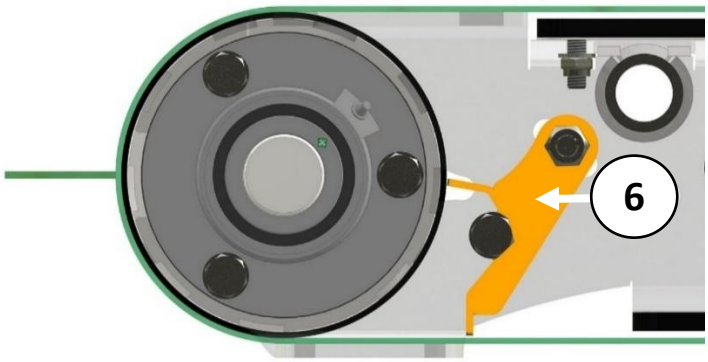
The conveyor belt is driven hydraulically via a hydraulic motor ① that is mounted directly on the roller shaft. A spring-mounted torque support ② protects the motor from impacts.



The rough belt tension is very easily adjusted on the outside of the work unit using the quick tensioner ③. The fine adjustment ④ is accessible from the rear on both sides. This is necessary for setting the centred run of the conveyor belt. The belt guide rails ⑤ hold the belt in position.
For adjustment, see ‘Chapter 8.10 Changing the conveyor belt’.



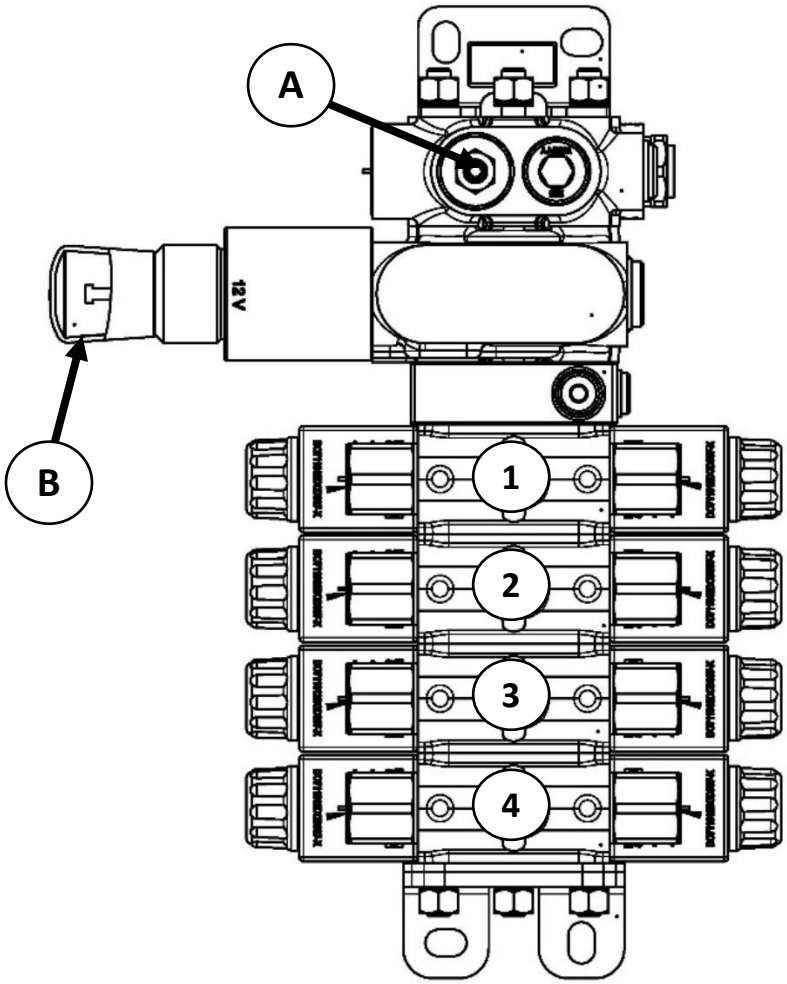
The conveyor belt rollers are cleaned by the roller scraper⑥. This can be set separately for each side.
For adjustment and cleaning, see ‘Chapter 8.11 Adjusting the roller scraper’.



3.8.2. Hydraulic system for machine operation:

3.8.2.1. Hydraulic valve block

Hydraulic block consisting of the load sensing element, the pilot valve and the four 4/3-way valves.



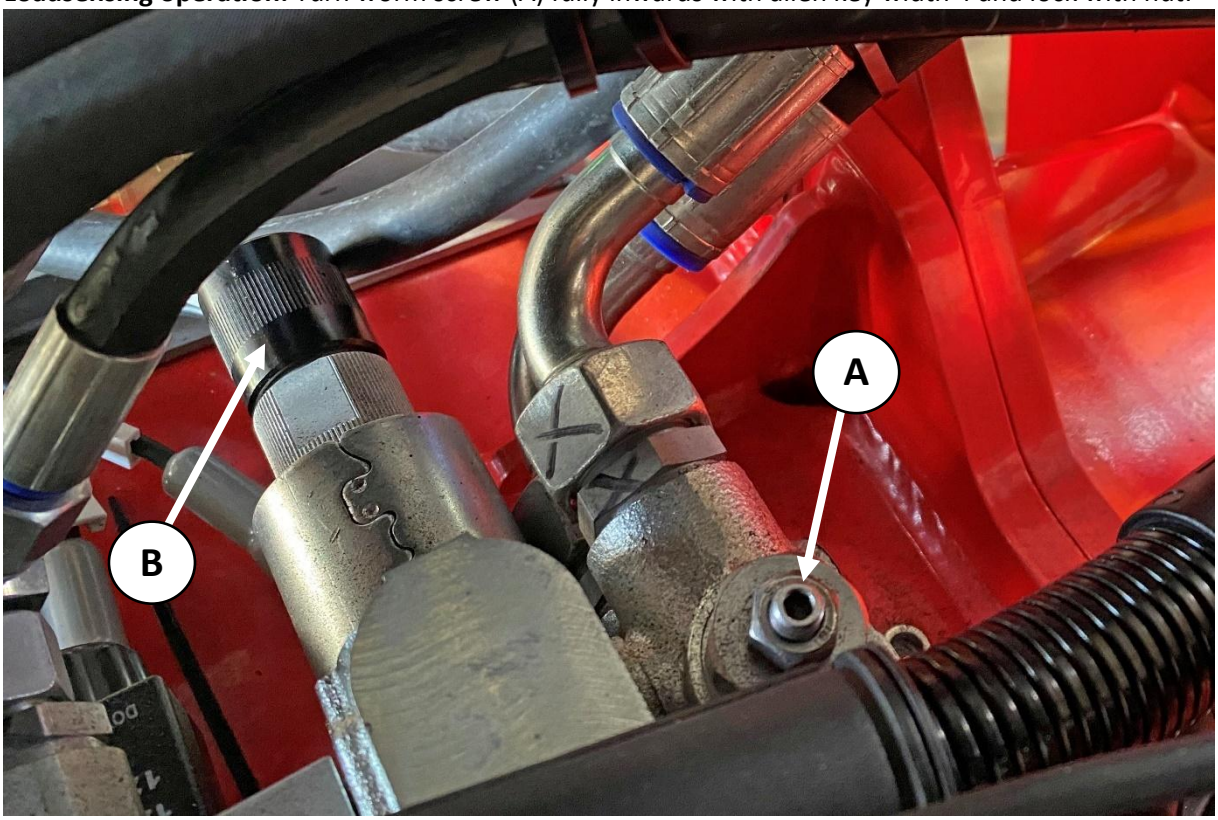
Description of the valve segments:

① boom swivel cylinder left and right
② slide in and out both sides
③ rotor lift
④ locking working unit / spring tensioner

Hydraulic emergency operation see in chapter 9.

3.8.2.1. Load sensing adjustment (A) and pilot valve adjustment(B)

Loadsensing operation: Turn worm screw (A) fully inwards with allen key width 4 and lock with nut.



CAUTION! Attention: for the pressure circulation without load, the couplings of the load-sensing pressure line and the return line on the tractor must be easy to turn. If the pressure is too high these connections can no longer be turned => there is an error; Danger of overheating => please contact customer service.

Operation with constant pump: Unscrew the worm screw (A) counterclockwise with an Allen key width 4 and lock it with the nut.

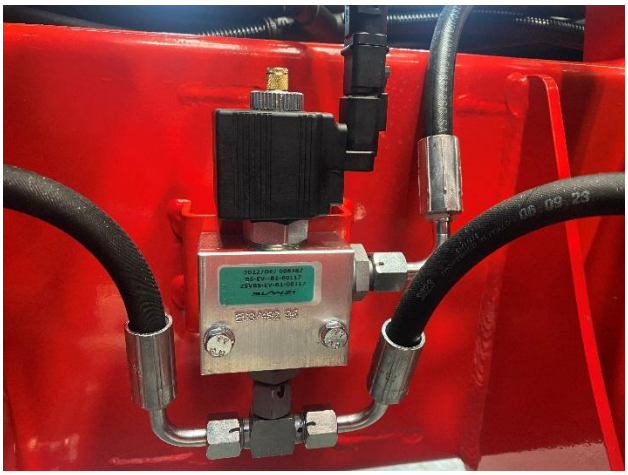
Pilot valve: with wrench size 7 this set screw (B) can be adjusted. Factory setting: the piston of the valve is only lightly touched with the adjusting screw and then fixed with the lock nut. For emergency operation, the flow can be adjusted from zero to maximum, depending on the position of the screw (fully screwed in)

3.8.2.2. Lowering brake valve:

The lowering brake valve switches the locking block on the boom cylinder to the floating position in the working position. Do not adjust the factory setting!

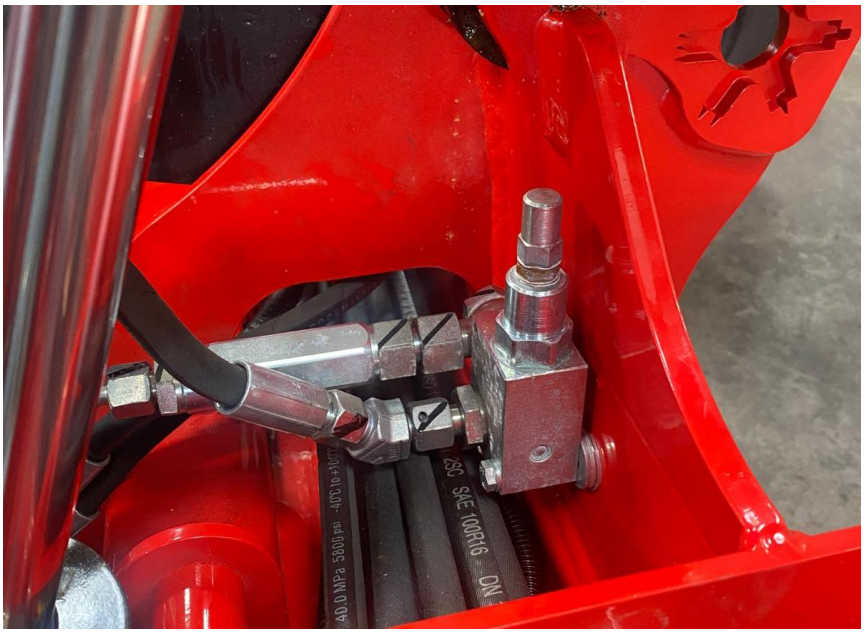
3.8.2.3. Linkage lock valve:

The linkage lock valve is de-energised and locked during transport. In the working position, the valve is energised as soon as the working units are unlocked or the spring tensioner is tensioned and the machine is switched to floating position on the control panel. The knurled screw must be screwed in, otherwise incorrect operation will damage the machine.



3.8.2.4. Pressure relief valve spring tensioner

The pressure relief valve including non-return valve protects the spring tensioner from colliding with the lifting unit. If the spring tensioner is not correctly tensioned, the lifting unit could damage it. Do not change the factory setting.

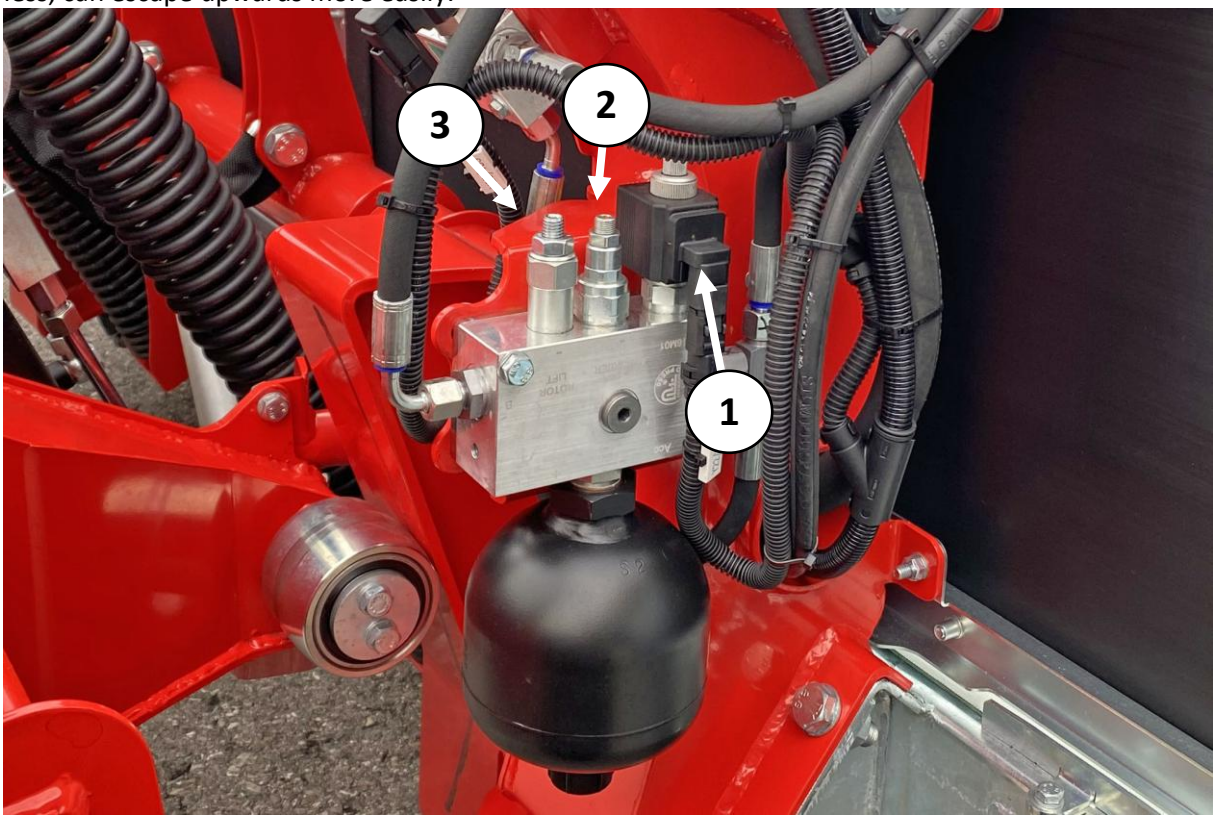


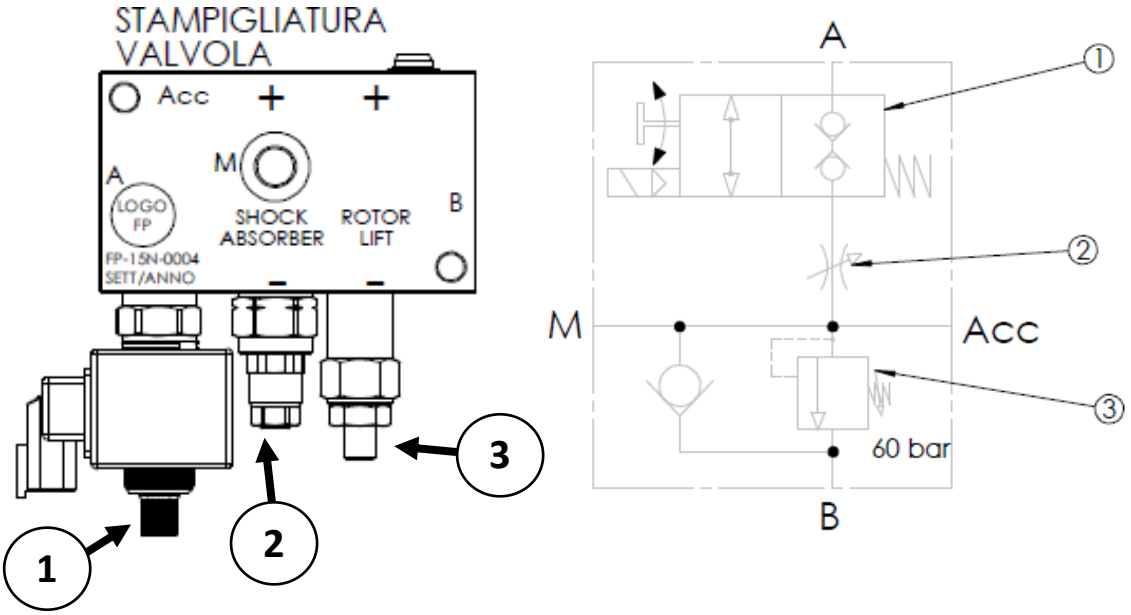
3.8.2.5. Rotor lock valve:

The rotor lock valve is de-energised and locked during transport. During operation, the valve is energised and the rotor can therefore still move up and down or is in floating position in the operating position. The knurled screw must be screwed in, otherwise incorrect operation will damage the machine.

3.8.2.6. Rotor module on left and right working unit:

Electromagnetic valve ①: Lock rotor
Adjusting screw ②: Setting the damping; clockwise => damping becomes stronger
Adjusting screw ③: Setting the suspension; clockwise => suspension becomes stronger, rotor rests less, can escape upwards more easily.





Normal operation: Knurled screw ① is screwed in; the electromagnetic valve can switch to draught or shut off.

Valve does not switch:
Unscrew knurled screw several times and screw in again.
Unscrewed thumbscrew switches the valve to passage.

4. Mounting and dismounting of RESPIRO R8 compact:

Never exceed the permissible total weight of the tractor, its maximum lifting capacity and the maximum permissible axle loads!

CAUTION!

4.1. Tractor requirements:

- 2x double acting control units with floating position
- Load Sensing
- Standard rear linkage
- ISOBUS connector
- 7 pin connector
- Two air brake connectors

Description of mounting elements:

- PTO shaft to drive the gear pumps
- ISOBUS cable
- 7 pin cable
- 4 hydraulic flexibles
- Three load sensing lines (pressure hose, return hose and load-sensing control line)
- Two pressure air lines for braking device

4.2. Connecting the machine:

4.2.1. Ankoppeln der Unterlenker

For coupling you need lower links and lower link balls of category 3/2.

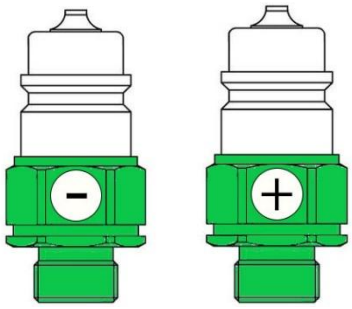
The lifting struts of the tractor three-point linkage should be aligned so that the lower links are aligned parallel to the ground.
After decoupling, raise the lower links and push the parking leg upwards.

4.2.2. Connecting the PTO shaft:

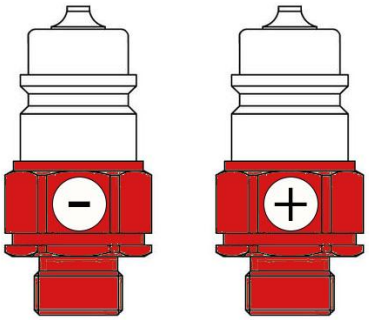
Slide the PTO shaft onto the PTO stub shaft.

4.2.3. Connect the hydraulic line and the ISOBUS wire:

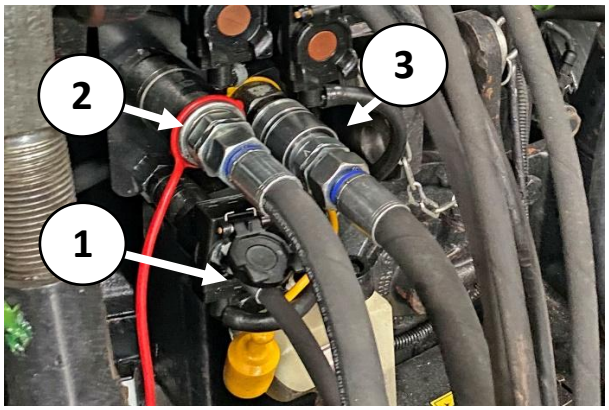
1. Before connecting the hydraulic lines put all control units in floating position and stop the tractor so that the load-sensing connections are depressurised.
2. Connect double-acting connection LEFT to control unit 1. Pay attention to the correct connection of of pressure (LEFT + / 2 clips) and return (LEFT - / 1 clip) side.



3. Connect double-acting connection RIGHT to control unit 1. Pay attention to the correct connection of pressure (RIGHT + / 2 clips) and return (RIGHT - / 1 clip) side.



4. Connect the load-sensing hoses to the tractor connections.



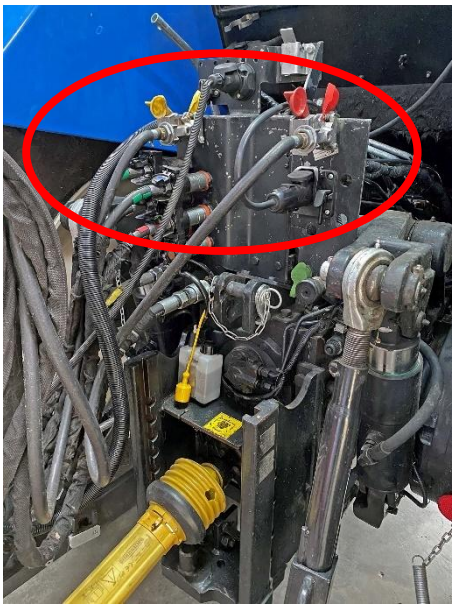
Load-sensing connections:

① control line: cat 2
② pressure line: plug cat 4
③ return line: socket cat 4

5. Connect the power supply and communication from the tractor via ISOBUS cable. Ensure proper strain relief! This can prevent errors in the communication or power supply of the machine.

4.2.4. Connecting the brake lines and lighting cables:

First attach the yellow coupling (brake and control line), then the red coupling to the tractor. When disconnecting the machine, first disconnect the red coupling, then the yellow one.



If the brake hoses are not connected to the brake system of the tractor, the brakes of the machine are automatically actuated.

Finally connect the 7-pin cable and check if the lighting works.

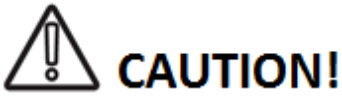
CAUTION!

The cable may be damaged by improper mounting or fastening.
Mechanical stress on the cable may lead to damage.
The cable must not be strained during the lifting and lowering of the linkage.

4.3. Unfold the RESPIRO R8 compact

Before bringing the machine into working position, the following points must be observed:

- make sure that there are no persons in the swivelling range of the machine.
- if necessary, refer all persons from the swivel range.

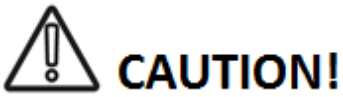


The folding of the machine only

- at standstill
- on a flat surface
- tractor and RESPIRO R8 compact in a stretched position
- align the combination in the fall line on a gentle slope

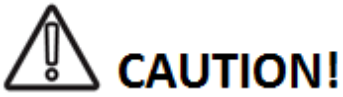
Bring the machine into working position, see chapter 5.1.1.1 on page 32.

Never switch on the PTO shaft when the machine is in transport position!



4.4. Fold the RESPIRO R8 compact in transport position

Before bringing the machine into transport position, the following points must be observed:



- Wait for complete standstill of all moving parts.
- Make sure that there are no persons in the swivelling range of the machine.
- If necessary, refer all persons from the swivel range.

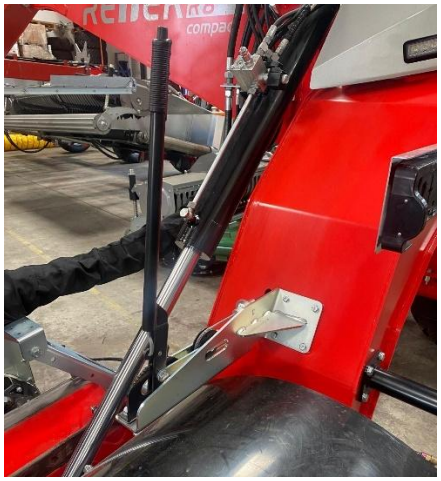
Bring the machine into transport position, see chapter 5.1.1.2 on page 32.

4.5. Parking of the machine:

Place the machine only on level and horizontal surfaces. The machine should preferably be parked in transport position.

1. Put the tractor and machine into an straight position
2. Lift the lower link and put the parking leg down.
3. Put the control units into floating position and turn off the tractor engine.
4. Disconnect the brake lines, hydraulic hoses and ISOBUS cable.
5. Place the hoses in the designated attachment.
6. Remove the PTO shaft and put it in the parking position
7. secure the machine with the parking brake.
8. Apply the parking brake and, if necessary, secure the machine with chocks.
9. Open the lower link hook and lower the linkage

Wheel chocks on the right-hand side of the machine



Parking brake

4.6. Ballasting of the tractor

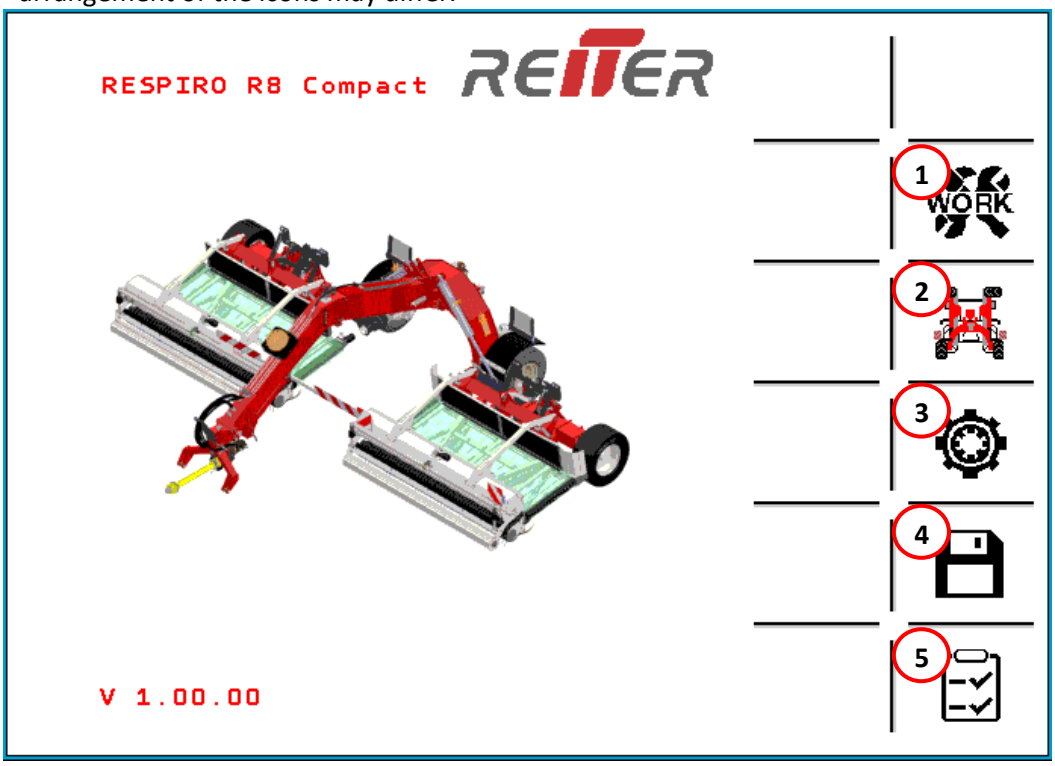
The RESPIRO R8 weights 4800 kg, thereof 3.2 t are distributed on the 4 wheels and 1.6 t on the tractor rear linkage.

The permissible total weight of the tractor, its lifting capacity or, the maximum permissible load on the coupling system and the maximum permissible axle loads must be observed. The front axle load should always be 20% of the tare weight of the tractor. If this is not achieved, attach appropriate ballast weights to the front of the tractor to ensure proper steering and braking capability.

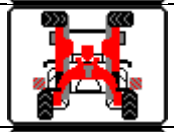
5. Operation of the machine:

5.1. Start screen:

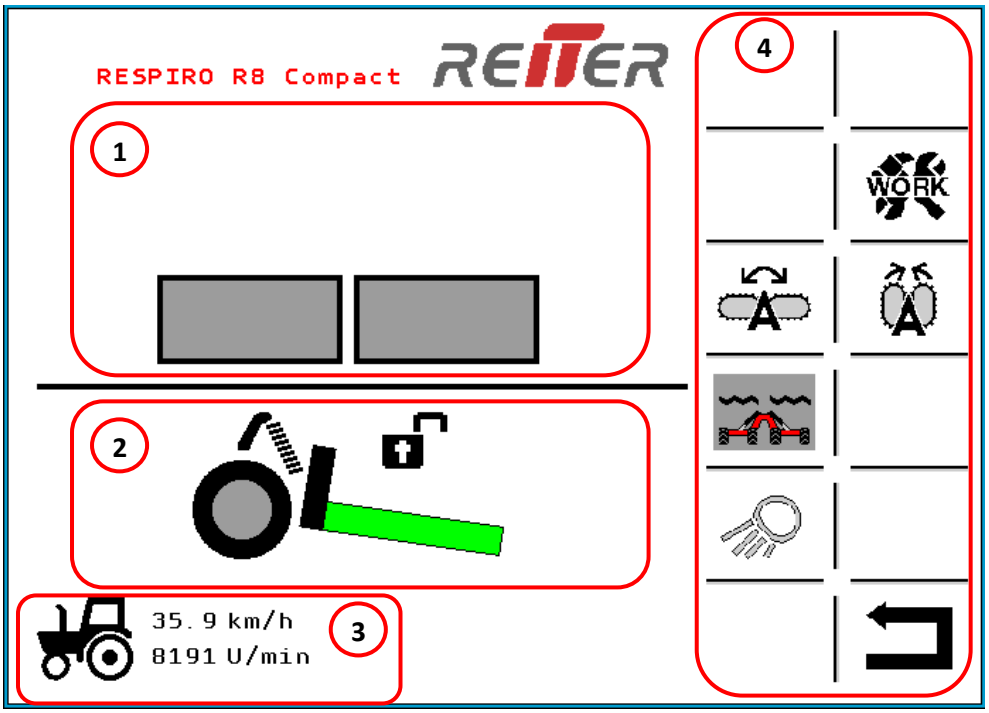
The machine is controlled via the tractor ISOBUS terminal or via an independent ISOBUS-capable terminal. Most terminals can be operated via the touchscreen. Many terminals also have haptic buttons next to the display. The number of buttons varies depending on the terminal, so the arrangement of the icons may differ.



Key and menu explanation:

	WORK menu All functions for swathing work.
	TRANSPORT menu For folding into transport or working position.
	SET menu Machine settings are made here.
	DATA menu Hectare and hour counter.
	TEST menu

5.1.1. TRANSPORT menu:

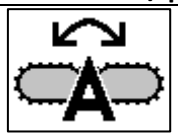
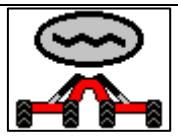
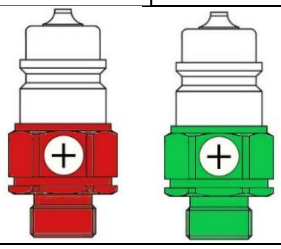


① Boom or work unit position display. If the boom is switched to floating position, they are displayed in green, otherwise in grey.
② Display of working units locked (grey) or unlocked (green).
③ Driving speed and PTO speed display if the ISOBUS signal from the tractor is present or comes via the signal socket.
④ Function button panel for switching the individual functions.

5.1.1.1. Bring the machine into work position:

The prescribed sequence for folding into the working position must be strictly observed.

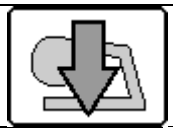
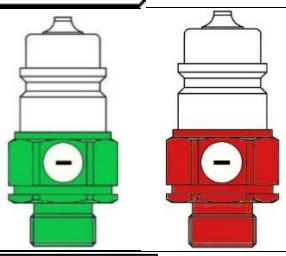
CAUTION!

	function button activ / passive	function	description
1.		Automatic unfolding	Press and hold the unfold button until the machine is completely unfolded. If the button is released earlier, the folding process stops. - the carriage extension raises the working units fully and unlocks the booms - the boom cylinders are extended until the outer wheels are fully lowered - the working position is reached at 0°. The spring tensioner is tensioned hydraulically and the working units are unlocked. - Keep the button pressed until the spring tensioner has moved to the rear stop and the previous raking height has been reset. - Release the button
2.		float position	The booms and rotors are moved to the floating position. The belt valve is activated. The machine is now ready for work.
3.		WORK menu	You can jump directly to the WORK menu.
4.		lift working unit	The working units can only be lifted when the machine is switched to the floating position.
5.		Swith on PTO	Now switch on the PTO shaft on the tractor.

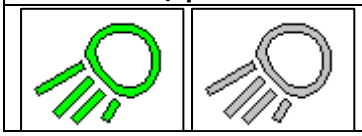
5.1.1.2. Bring the machine into transport position:

CAUTION!

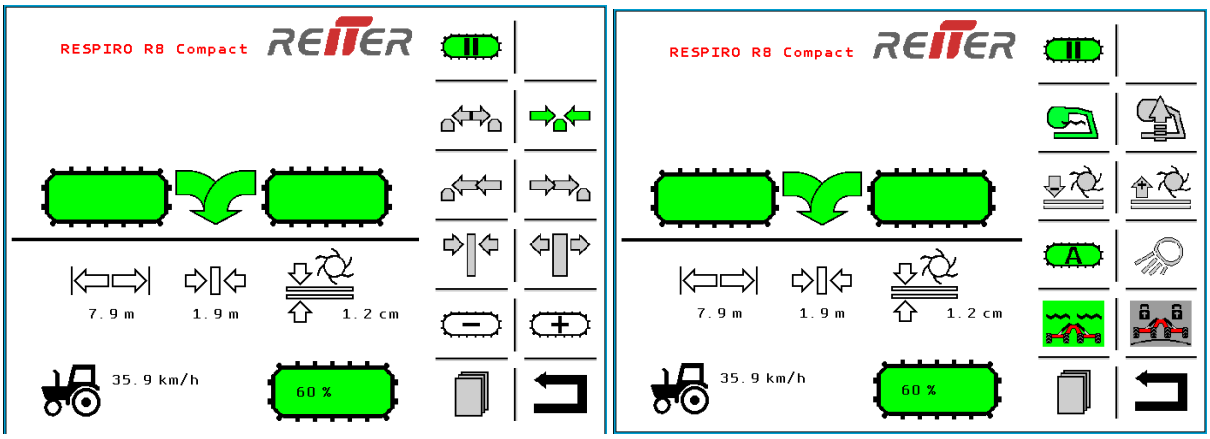
The prescribed sequence for folding into the transport position must be strictly observed.

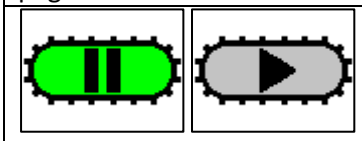
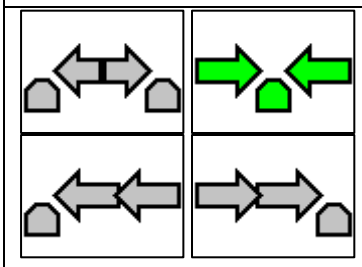
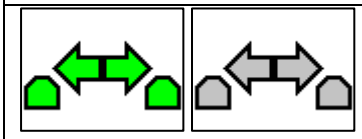
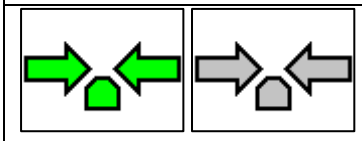
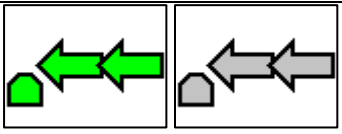
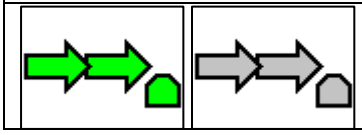
	function button activ / passive	function	description
1.		Swith PTO off	At the end of the work, first switch off the PTO shaft.
2.		lower rotor	Ensure that both rotors are in the lowest position. If necessary, press the rotor down.
3.		lower working unit	The working units must be in working position, i.e. the linkages must be fully lowered. Set the tractor control unit green and red to lower or minus.
4.		Automatic folding	Press and hold the folding button until the machine is completely folded. If the button is released earlier, the folding process stops. - The spring tensioner is released hydraulically and the working units are locked for transport. - Work units are moved to the widest position - The boom cylinders are retracted and the working units are raised until the transport position is reached at 90°. - Work units are moved into the transport lock - Release the button → ready for road transport

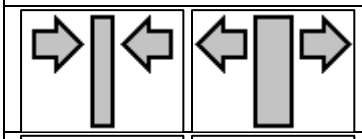
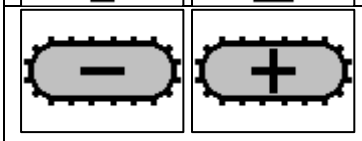
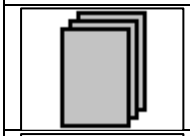
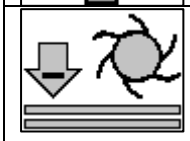
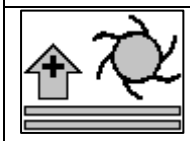
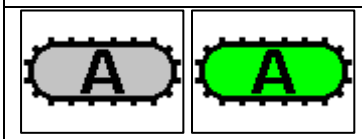
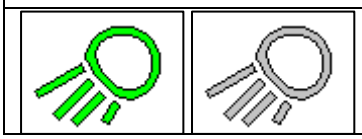
5.1.1.3. Further function buttons in TRANSPORT menu:

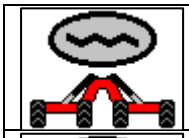
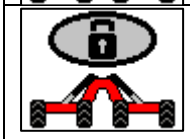
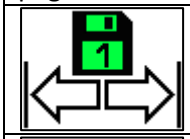
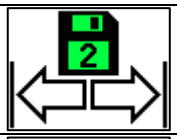
function button activ / passive	function	description
	working lights	LED worklights are switched on or off.

5.1.2. WORK menu:



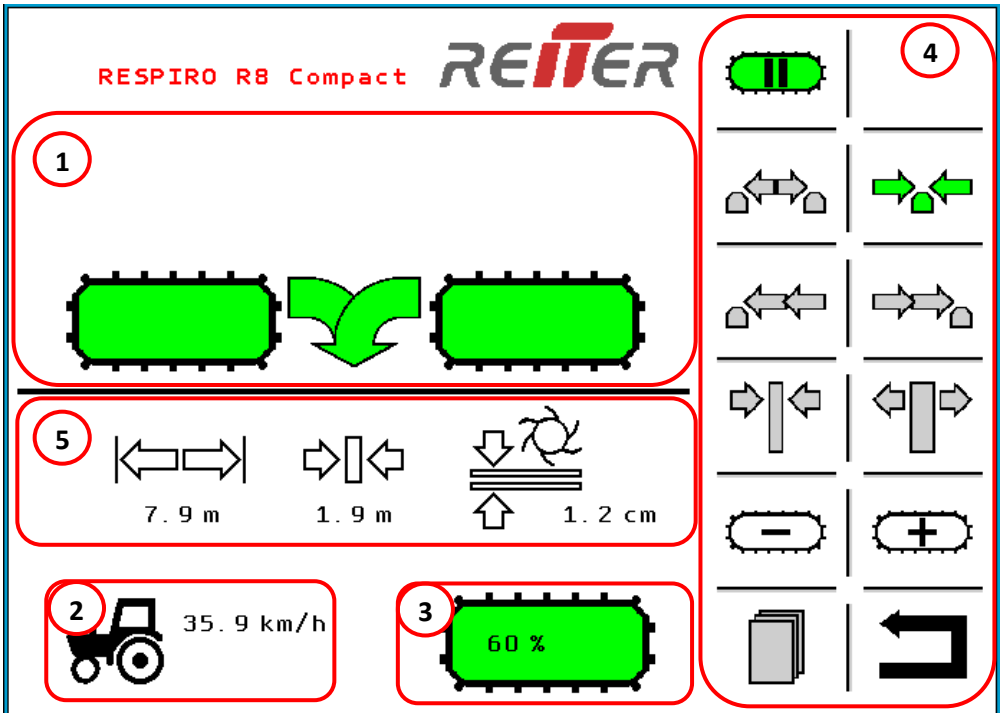
function button activ / passive	function	description
page 1		
	Belt stop / start	Stops both belts or starts both belts. Is on all pages in the Work menu. As long as the button is held when starting the belt, the belt runs at half speed to avoid piles. Also possible with active automatic belt switch with lifted and stopped belt.
	Possibilities for the swath placement	The swath deposit button highlighted in green is currently active - is shown in green on the work display. The swath deposit buttons with a grey background can be switched.
	Splitting	Press the button briefly, the belts rotate outwards. Press and hold the button, the belts rotate outwards and the working units are automatically moved together completely.
	Centre swath	Press the button briefly, the belts rotate to the centre. Press and hold the button, the belts turn to the centre and the working units are automatically moved apart up to the stored width.
	Swath left	Press the button briefly, the belts turn to the left in the direction of travel. Press and hold the button, the belts turn to the left and the work units are automatically moved completely together.
	Swath right	Press the button briefly, the belts turn to the right in the direction of travel.

		Press and hold the button, the belts turn to the right and the work units are automatically moved completely together.
	Working width	Press and hold these buttons to reduce or increase the working width
	Belt speed	The belt speed of both belts is reduced or increased by 5 % each time the button is pressed. The current percentage value is shown on the Work display.
	Scroll	Scroll to other pages of the function keys.
	Back button	Takes you back to the previous page.
page 2		
	lower rotor	Both rotors are lowered and switched to floating position.
	Lift rotor	Both rotors are raised until the button is released again. For swathing hay or straw or for clearing blockages.
	Reduce rake height	The rake height is reduced when the button is pressed. The spring tensioner is lifted briefly each time the button is pressed. Attention: Adjustment is only possible when the lifting mechanism is fully lowered.
	Increase rake height	Pressing the button raises the raking height. The spring tensioner is lowered each time the button is pressed. Caution: Adjustment only possible when the lifting mechanism is fully lowered. ATTENTION: if the spring tensioner is fully lowered, it will collide with the lifting mechanism as soon as it is raised.
	Automatic belt switch	Automatic belt switch is activated or deactivated. The conveyor belt is automatically switched off when each individual work unit is lifted. It is switched on again automatically when it is lowered. The delay time can be set in the SET menu.
	working lights	LED worklights are switched on or off.

	float position	The booms and rotors are moved to the floating position. The belt valve is activated. The machine is now ready for work.
	locking boom	The floating position on the boom cylinder is locked. For short-term work in trenches or for crossing fords. A pop-up appears on the display. For normal work in the field, always deactivate again using the float position button.
page 3		
 	memory working width	Press and hold to save the current working width (button turns green). A short press automatically sets the saved working width.
 	memory raking height	Press and hold to save the current raking height (button turns green). A short press automatically sets the saved raking height.

5.1.2.1. Description of various display information in the WORK menu:

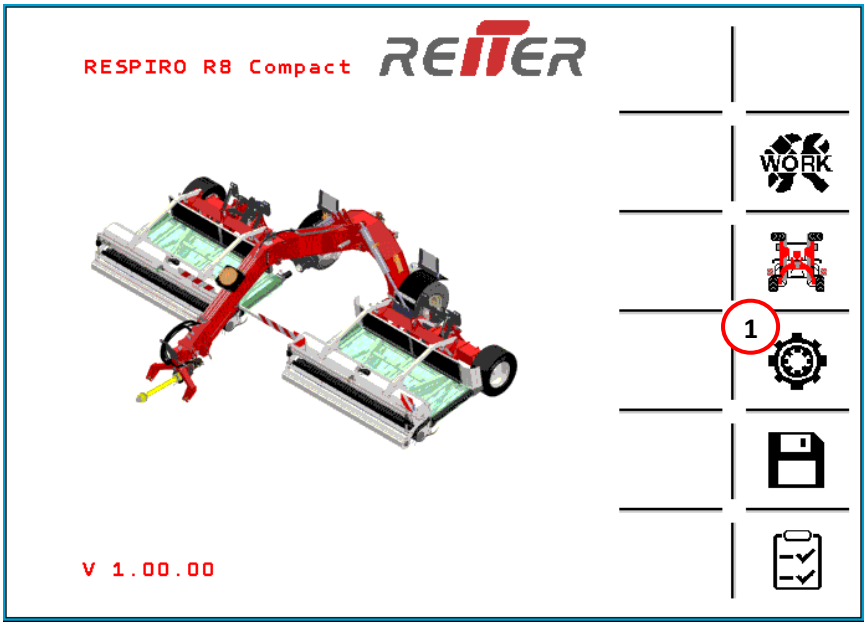
All information on the deposit direction and belt side always refers to the operating terminal in the direction of travel of the machine.



① Selected swath mode. If the belts are green, they are switched on. If the belts are grey, they are stopped.
② Driving speed and PTO shaft speed display if the ISOBUS signal from the tractor is present or comes via the signal socket.
③ Display of belt speed in %. If this belt appears green, the automatic belt control is switched on.
④ Function button panel for switching the individual functions.
⑤ Display of working width, swath width, raking height

5.1.3. SET menu:

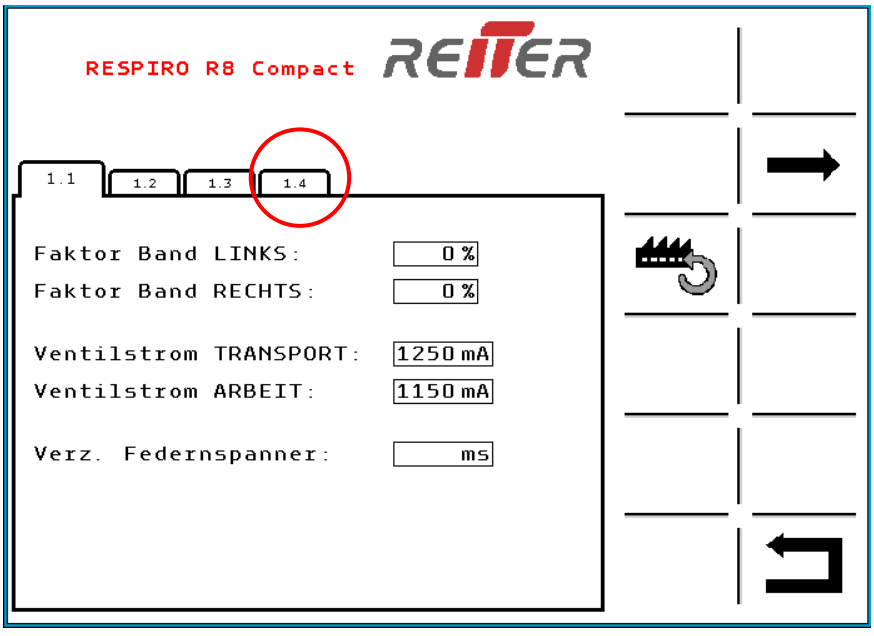
Machine setting in the set menu. ①



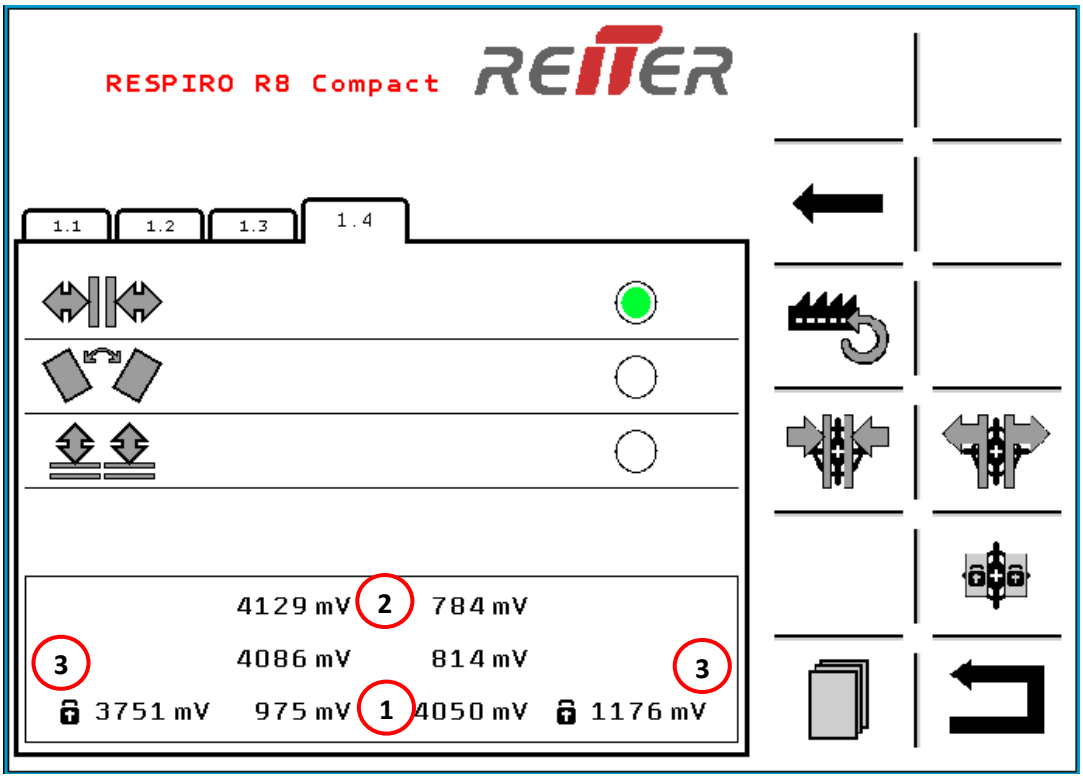
5.1.3.1. Calibration menu:

Press and hold the SET menu button ① to access the calibration menu.

The angle sensors are calibrated on page 1.4.



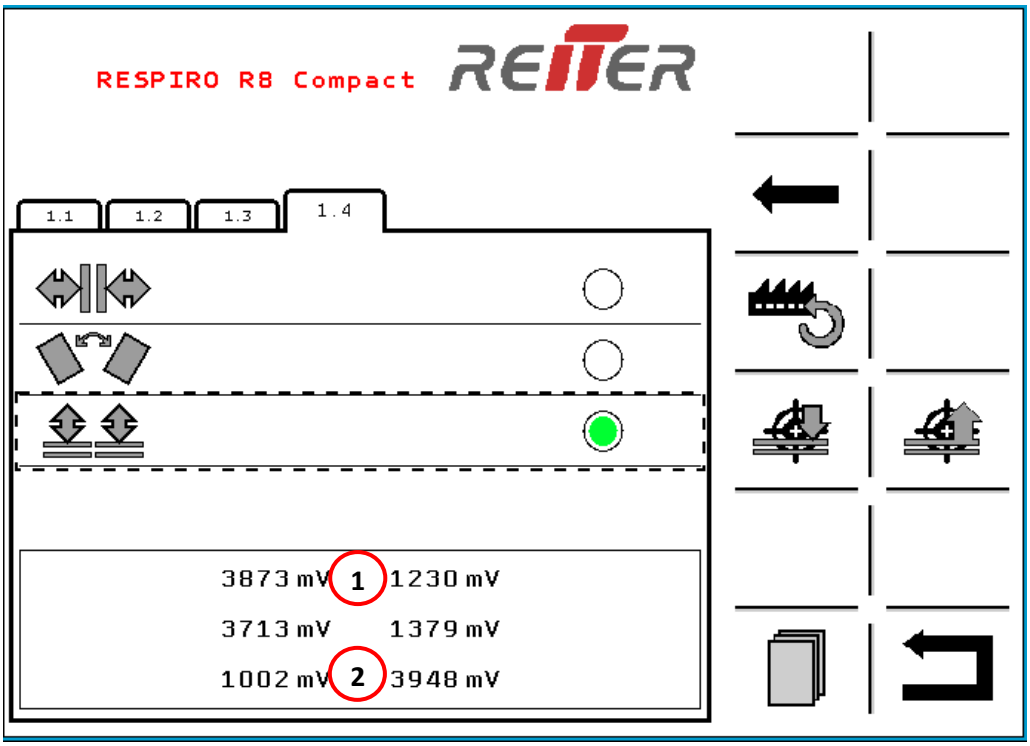
5.1.3.2. Calibration of angle sensor working width R24/34:



Bring the machine into working position.

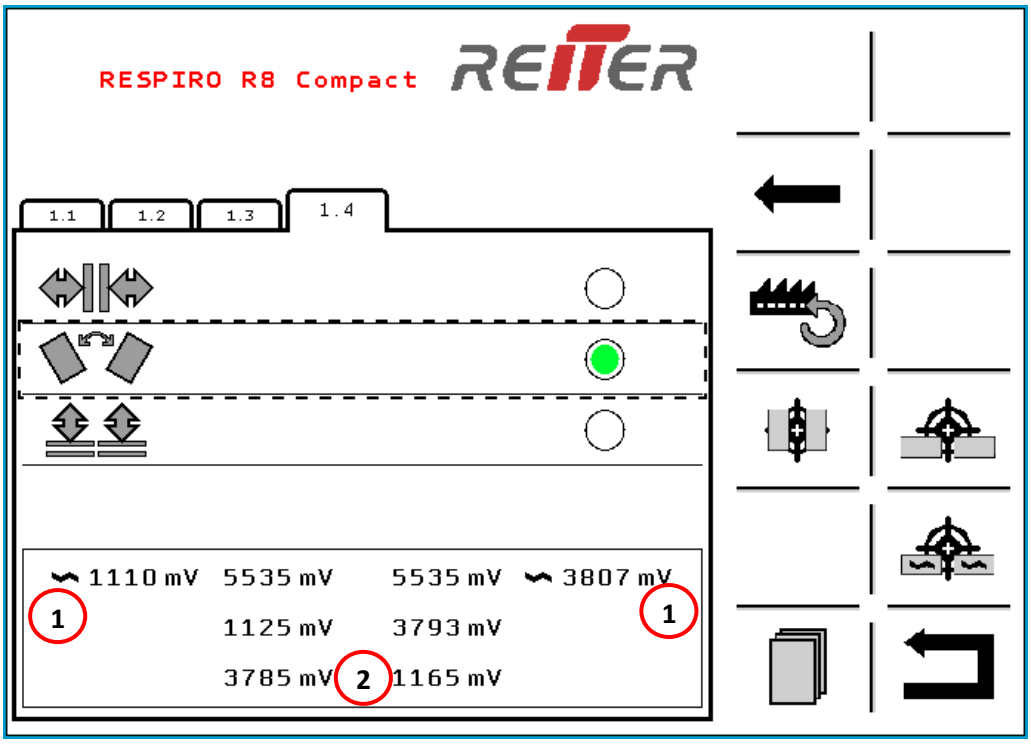
	Softkeys	Function	Description
1.		Calibrate narrowest slide position	Press and hold the button until the values no longer change and are overwritten.
2.		Calibrate widest slide position	Keep the button pressed until the values no longer change and are overwritten.
3.		Locking position Transport	When the stabilisers are in the 90° position, pull the working units down using the working width button until they are mechanically stopped. Then calibrate this position with this button.

5.1.3.3. Calibration of angle sensor rake height / locking R22/32:



	Softkeys	Function	Description
1.		Calibrate lowest rake height	Press and hold the button until the values no longer change and are overwritten.
2.		Calibrate locking spring tensioner	Press and hold the button until the values no longer change and are overwritten.

5.1.3.4. Calibration of angle sensor boom R25/35:



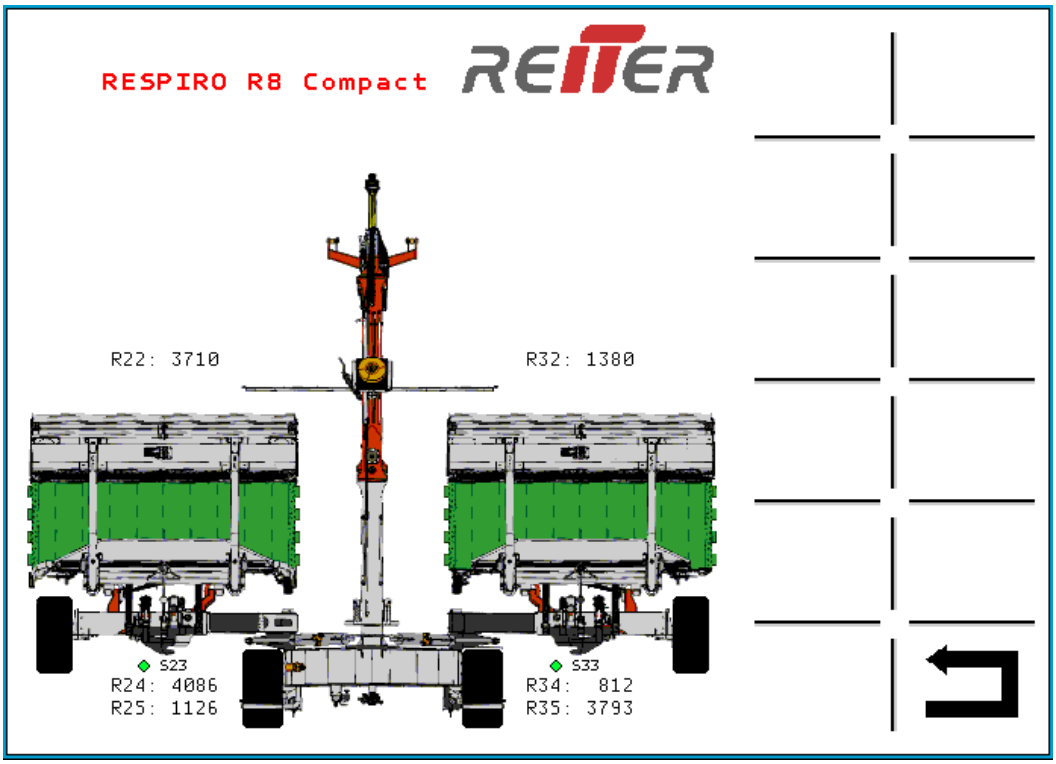
	Softkeys	Function	Description
1.		Calibrate float position	Press and hold the button until the values no longer change and are overwritten.
2.		Calibrate 90° transport position	Important: The working unit must be locked and the carriage in the widest position. Keep the button pressed until the values no longer change and are overwritten.

5.1.4. DATA menu:

Not yet available for pre-series.

5.1.5. TEST menu:

Current sensor values can be read off.



6. Reccomended settings for operation

6.1. Mounting height

The correct mounting height of the slewing gear is important for smooth operation.

The swivel flange of the headstock should be parallel to the ground.

6.2. Spring suspension

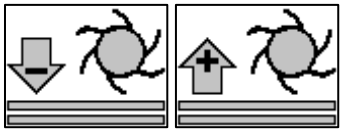
The work units on the RESPIRO R8 compact are relieved via the tension springs.

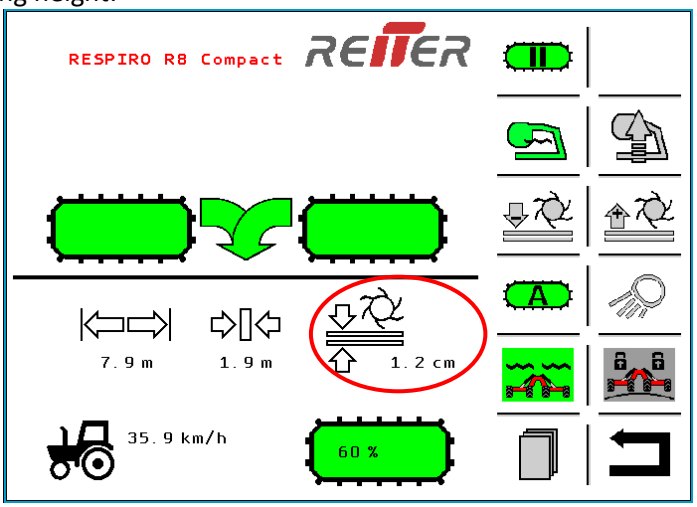
The spring relief is preset at the factory.

6.3. Working height of the pick-up:

The working height of the pick-up is adjusted by the hydraulic spring tensioner. This is done directly from the terminal in the WORK menu. The set raking height is displayed on the terminal.

Use the buttons to reduce or increase the raking height.





2 memories for different raking heights.

Lowest position approx. 0.5 cm raking height

Highest position approx. 3.0 cm raking height

Basic setting raking height: on level ground, the distance between the pick-up tines and the ground should be approx. 1 - 1.5 cm.

6.4. Rotor position:

The rotor must be set in such a way that the vertical distance between the rotor tine tips and pick-up is around 5 cm.

CAUTION!

Rotor collision with pick-up
Rotor tines can break when hitting the pick-up.

The distance between the rotor tine tips and the pick-up should not be less than 5 cm.

Height adjustment of the rotor (distance from rotor to pick-up)

1) Loosen lock nut.
2) Raise the rotor position: turn screw clockwise.
3) Set the rotor lower: Turn the screw anti-clockwise.
4) Retighten lock nut

For setting the relief, see chapter 3.8.2.7: Rotor module on right and left working unit:

6.5. Headland position

Put the two hydraulic control units on “pressure” (+). This will raise the two units. At the headland, the conveyor belt is to be brought to a standstill, because otherwise the crop is scattered at the headland. (belt stop or automatic belt switch).

6.6. Roller downholder

The height of the roller downholder can be easily adjusted using the central adjustment.

Recommendation:

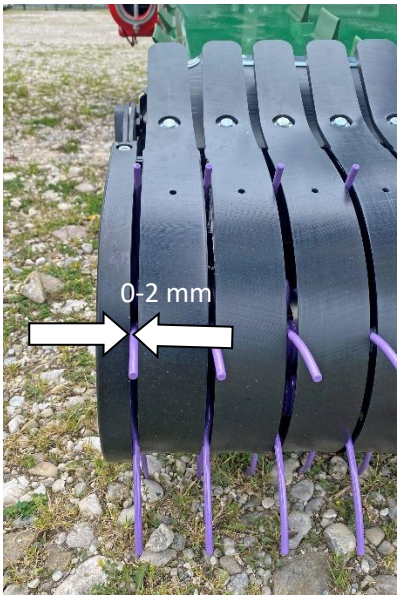
Low position: for low crops and very short grass

High position: for high masses and long crops

6.7. Pick-up side cover

The gap between the last scraper and the side cover is crucial for the pick-up to function properly at both ends. This gap should be as small as possible without jamming the pick-up tines. No forage is pulled in and the pick-up can work perfectly.

The distance to the pick-up tines should also only be approx. 0-2 mm. Adjustment via the shim plate on the two rear screws.

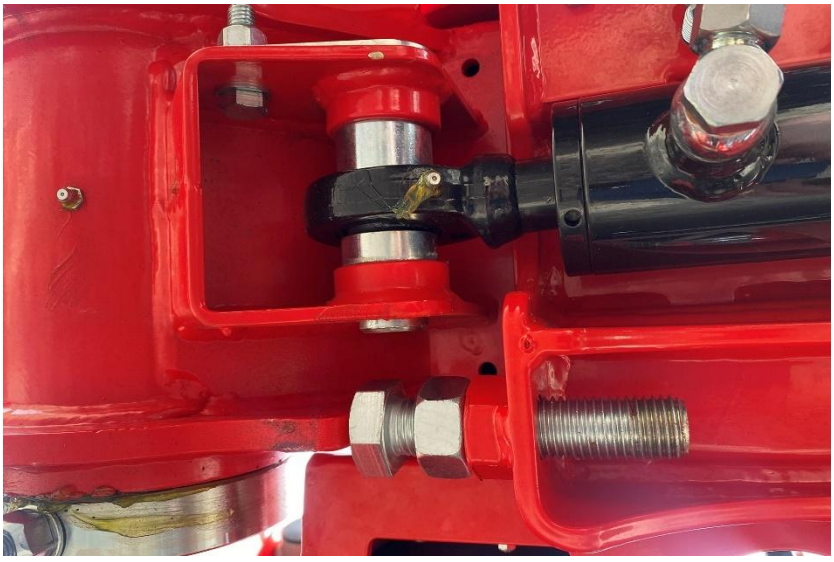


6.8. Side shift stop

To avoid raking gaps or collisions between the two pick-ups, the distance between the pick-ups must be adjusted. This is done using the stop screws on both sides of the side shift.

Now check the distance between the pick-ups as shown in the picture.

The factory setting is approx. 2 cm.



Adjusting the slide stop: Always lock the screw carefully.

7. Field work:

CAUTION!

Before bringing the machine into working position, the following points must be observed:

- Make sure that there are no persons in the swivelling range of the machine.
- If necessary, refer all persons from the swivel range.

The machine is equipped with a steering device to enable:

- The machine can follow the tractor track.
- Turning at the end of the field is easier and the machine is aligned more quickly back straight, as a machine without steering device.
- Better to drive in hard-to-reach field plots.

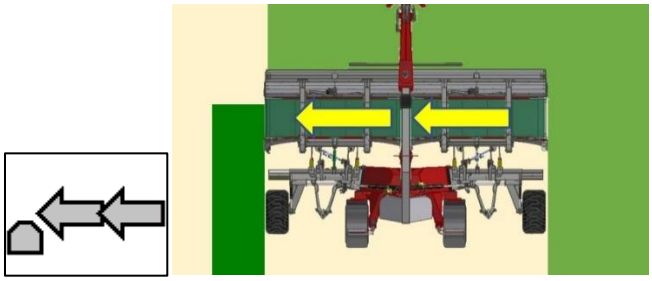
The attachment allows a turning angle of 90 degrees between tractor and machine to the right or left. The angle depends on the external width of the tractor. To protect the steering system, never try to force a larger steering angle.

Forward speed

Basically, the machine can be driven as fast as mowing before. However, the speed should always be adapted to the working conditions.

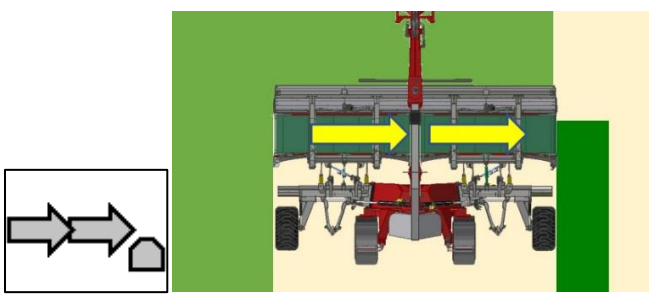
Left side swath (in the direction of travel)

Press the button briefly, the belts turn to the left. Press and hold the button, the belts turn to the left and the working units are automatically retracted hydraulically. Caution: No persons may be in the swivelling area. Press the button again to stop the hydraulic function.

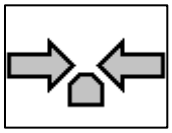
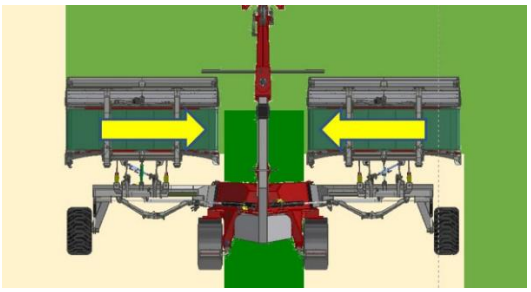


Right side swath (in the direction of travel)

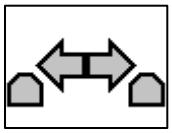
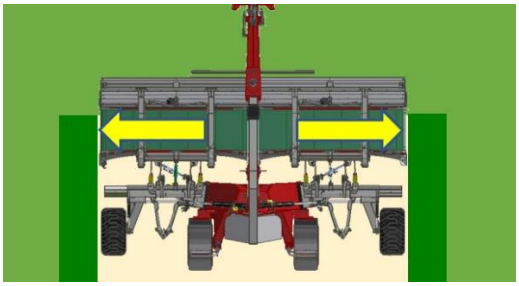
Press the button briefly, the belts turn to the right. Press and hold the button, the belts turn to the right and the working units are automatically retracted hydraulically. Caution: No persons may be in the swivelling area. Press the button again to stop the hydraulic function.



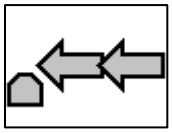
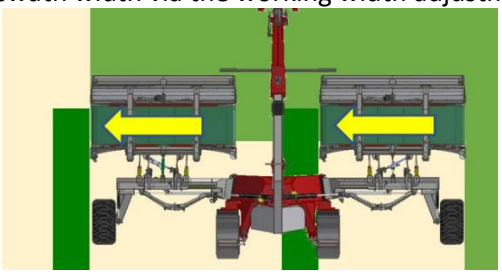
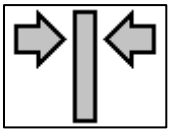
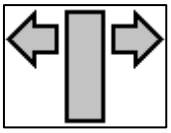
Center swath
Press the button briefly, the belts rotate to the centre. Press and hold the button, the belts turn to the centre and the working units are automatically moved apart hydraulically to the preselected working width.

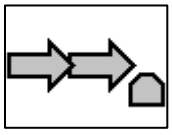
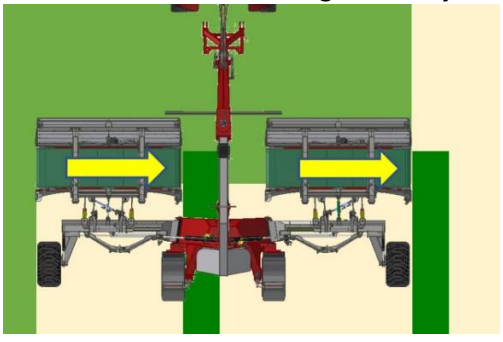
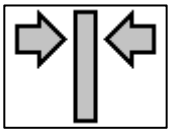
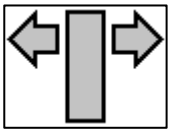
Swath placement left and right - split area
Press the button briefly, the belts rotate outwards. Press and hold the button, the belts rotate outwards and the working units are automatically retracted hydraulically. Caution: No persons may be in the swivelling area. Press the button again to stop the hydraulic function.

Single swath left
Press the button briefly, the belts turn to the left in the direction of travel.
Changing the swath width via the working width adjustment.

Single swath right
Press the button briefly, the belts turn to the right in the direction of travel.
Changing the swath width via the working width adjustment.

8. Maintenance

8.1. Checks before use:

1. Check the oil level: if the headstock is approximately horizontal and the oil temperature is approx. 20 ° C, the oil level in the upper window must be visible.
   If this is not the case, top up with hydraulic oil HLP 46.
   If the oil level drops too low, the return oil can splash on the surfaces => foam => axial piston pump and subsequently all other hydraulic motors will be damaged!!!
2. Check hydraulic drive for leaks
3. Check frame flange fittings for tightness (726 Nm tightening torque)
4. Check wheel nuts for all four wheels for tight fit (280 Nm tightening torque)
5. Check all bolt connections and hydraulic cylinders.
6. Check the screw connections M10x60 on the pick-up spine ① for tightness (49 Nm tightening torque).

Tightening torque table for standard threads torque in (Nm)		
thread size	strength class	
	8.8	10.9
M6	10,25	14,41
M8	24,93	35,06
M10	49	70
M12	86	121
M14	138	194
M16	215	302
M18	**296**	**417**
M20	**420**	**590**
M22	**574**	**807**
M24	726	1020

CAUTION!

Loose screws compromise the safety and stability of the machine. Loose screws can lead to costly consequential damage. Important: check that all screws are tight after the first 50 hours of operation.

8.2. Maintenance chart

	Before the very first operation	After 10 hours in the field	After 20 hours in the field	After 50 hours in the field	Every 8 hours	Every 50 hours	Every 200 hours	Every 500 hours	Every 1000 hours
Oil change: • hydraulic tank of the machine									X
Oil change: • main gear box				X				X	
lubrication: • pivot points						X			
lubrication: • headstock • belt roller bearings					X				
	Other maintenance services – to check:								
• running alignment of belts & tension of the belts		X					X		
• straight belt run					X				
• oil level in the hydraulic tank		X				X			
• braking system			X			X			
• fastening elements		X				X			
• tightening torque of the nuts of the wheels	X	X				X			

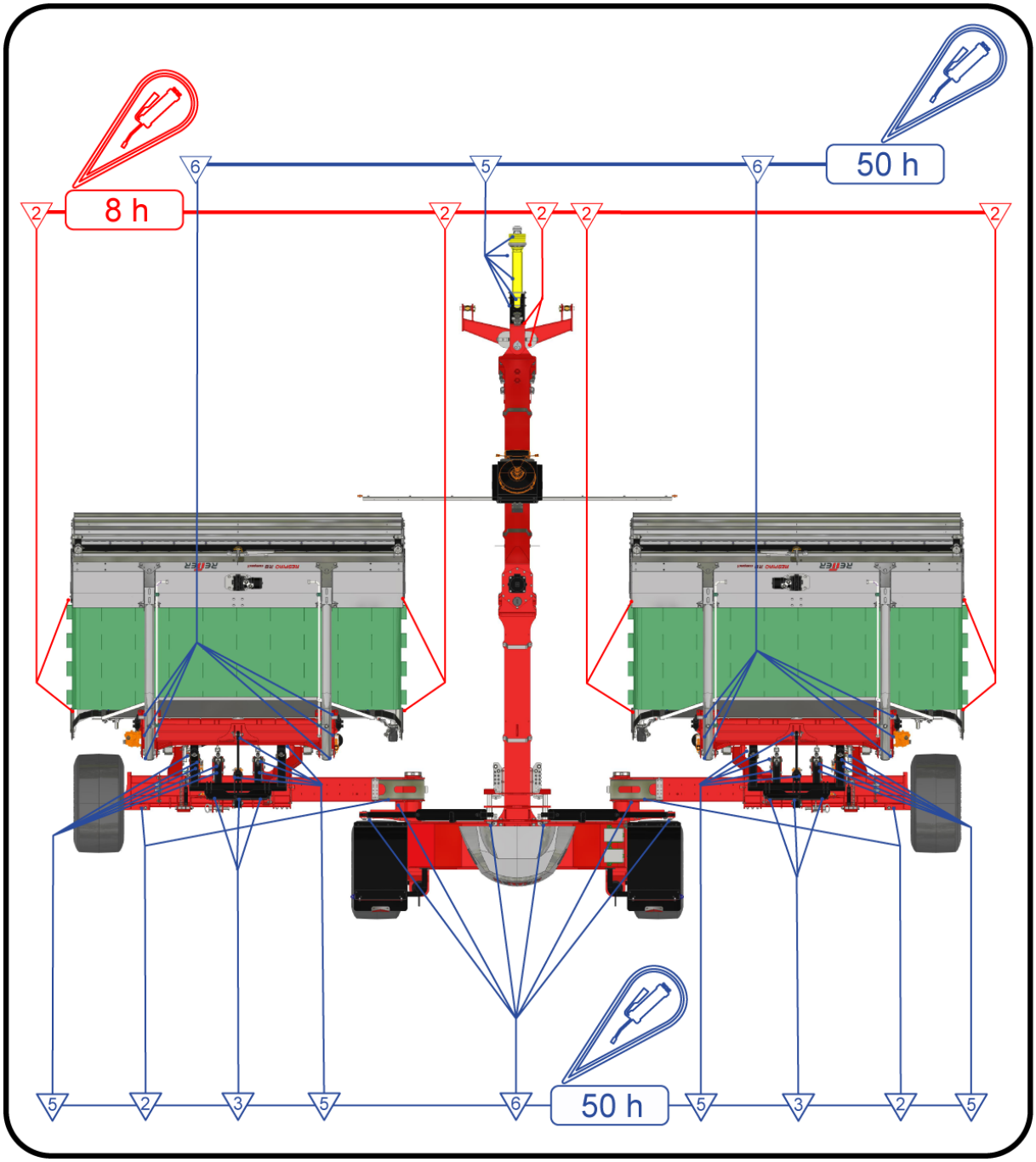
The pick-up and rotor are generally maintenance-free. Occurring wear should be checked daily. Components should be changed depending in the wear condition. Maintenance work must be carried our only when the machine is at a standstill and the key has been removed from the ignition. The lubrication points on the machine must be lubricated regularly.

8.3. Schmierplan

The following points are to be greased every 8 or 50 hours:

When greasing the headstock, swivel it several times during the greasing process. Grease can spread better.

Lubrication nipple protective caps must be replaced immediately if broken or lost.



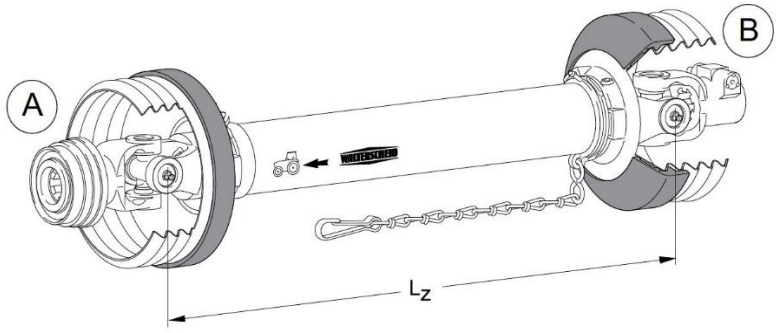
Schmierplan R8 compact

8.4. PTO shaft

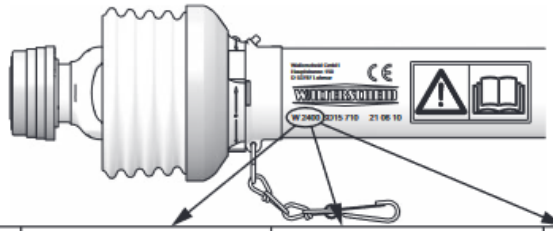
The retaining chain must be attached to the protective cover on the machine side to prevent the drive shaft guard from rotating. Shorten if necessary.
Damaged or missing protective parts must be repaired or replaced immediately!
Be sure to read the operating instructions for the drive shaft!

DANGER

Type designation: Walterscheid W2400



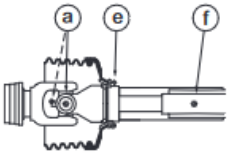
Walterscheid lubrication intervals: every 100 h



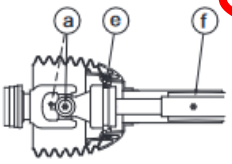
	P-Line			W-Line			ECO-Line	
	P	PWE/PWZ	W		WWE/WWZ		E	
	❶ ❷ ❸	❶ ❷ ❸	❶	❷ ❸	❶	❷ ❸	❶	❷ ❸
W1	250 h	60 h	100 h 250 h**	100 h	8 h 50 h***	60 h	8 h	
W2	250 h 100 h*	40 h	50 h		8 h	40 h	8 h	

W1 steht für weniger wartungsintensive Einsätze (z. B. Maisernte, Getreideernte, Hofmaschinen, Pflanzenschutz, Grünfutterernte...)
W2 beinhaltet die wartungsintensiven Arbeiten, wie Kartoffelernte, Bodenbearbeitung, Bestelltechnik, Rübenernte, Gülle- u. Stalldungausbringung und Rodetechniken
* extremer Staub und großer Beugewinkel
** mit P-Dichtung
*** Weitwingelgelenke mit Zentralschmierschlauch

W 2100-2700

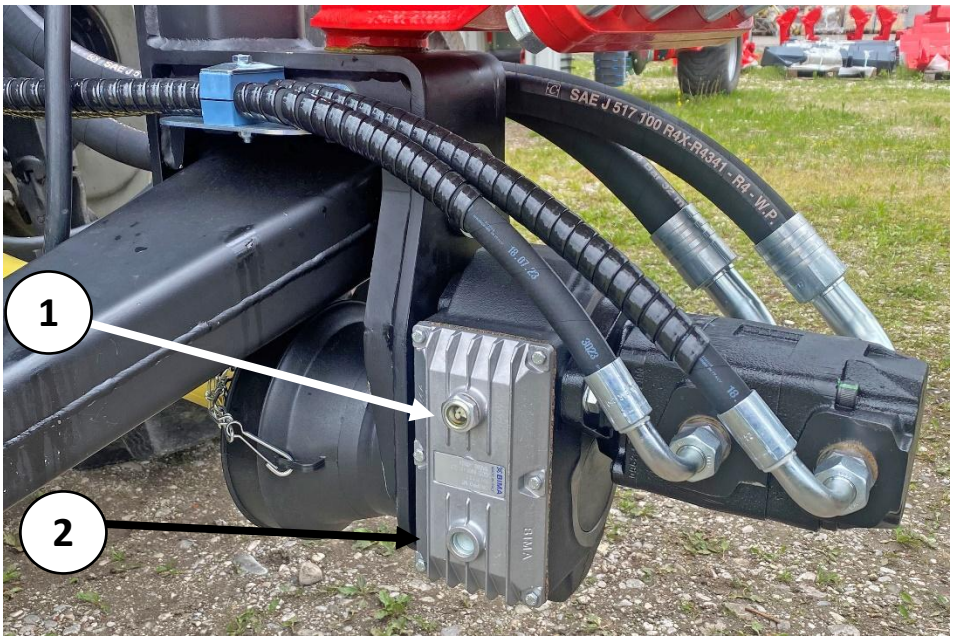


P 300-800



	a [g]	b [g]	c [g]	d [g]	e [g]	f [g]
W2100 W100E	5				5	15
W2200 W200E	5				5	15
W2300 W300E P300	5				5	15
W2400 W400E P400	10				5	15
W2500 P500	30				5	15
W2600 P600	30				5	15
W2700 P700	30				5	15
P800	35				5	15

8.5. Entrance gear box



8.5.1. Check oil level:

Check the oil level at the inspection glass ①. Top up with new oil if necessary.

8.5.2. Oil change:

Unscrew the screw plug for checking the oil level ① and drain the old oil into a suitable container via the oil drain plug ②. Screw the oil drain plug back in and fill the gearbox with new oil up to the level via the inspection opening. Then refit the screw plug. Dispose of used oil properly.

8.5.3. Oil change interval:

Oil change: after the first 50 h

Oil change interval: all 500 h

amount: 1.2 kg

Quality:

LUBRIFICANTI RACCOMANDATI – *RECOMMENDED LUBRICANTS*

TEMPERATURA AMBIENTE AMBIENT TEMPERATURE		OLIO MINERALE MINERAL OIL -15 / +25°C	OLIO MINERALE MINERAL OIL -5 / +35°C	OLIO SINTETICO SYNTHETIC OIL -25 / +80°C
Viscosity	ISO 3448	VG 100	VG 150	VG 150 - 220
	IV min	95	95	165
pakelo				ALLSINT EPC 100
Mobil		MOBILGEAR 627	MOBILGEAR 629	MOBILGEAR SHC XMP 2
Agip		BLASIA 100	BLASIA 150	BLASIA SX 220
bp		ENERGOL GR-XP 100	GR XP 150	ENERSYN HTX 220
Castrol		ALPHA SP 100	ALPHA SP 150	ALPHASYNT 220
elf		REDUCTELF SP 100	REDUCTELF SP 150	ORITIS 125 M5
ESSO		SPARTAN EP 100	SPARTAN EP 150	SPARTAN SYNT EP 22
IP		MELLANA 100	MELLANA 150	TELESIA OIL 150
Shell		OMALA OIL 100	OMALA OIL 150	OMALA OIL HD 200
		CARTER EP 100	CARTER EP 150	CARTER SH 220

8.6. Brake system:

Risk of injury due to damage to the brake system

DANGER

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

- Adjustment and repair work on the brake system may only be carried out by authorised specialist workshops or recognised brake services.
- Have the brakes checked regularly by a specialised workshop.
- Have damaged or worn brake hoses replaced immediately by a specialised workshop.
- Irregularities or malfunctions in the function of the brake system must be rectified immediately by a specialised workshop.
- Only a machine with an intact brake system may be used for work in the field or for travelling on the road.
- No changes may be made to the brake system without the authorisation of REITER.
- REITER accepts no liability for natural wear, defects caused by overloading or modifications to the brake system.

Note for new vehicles or after a brake service:

DANGER

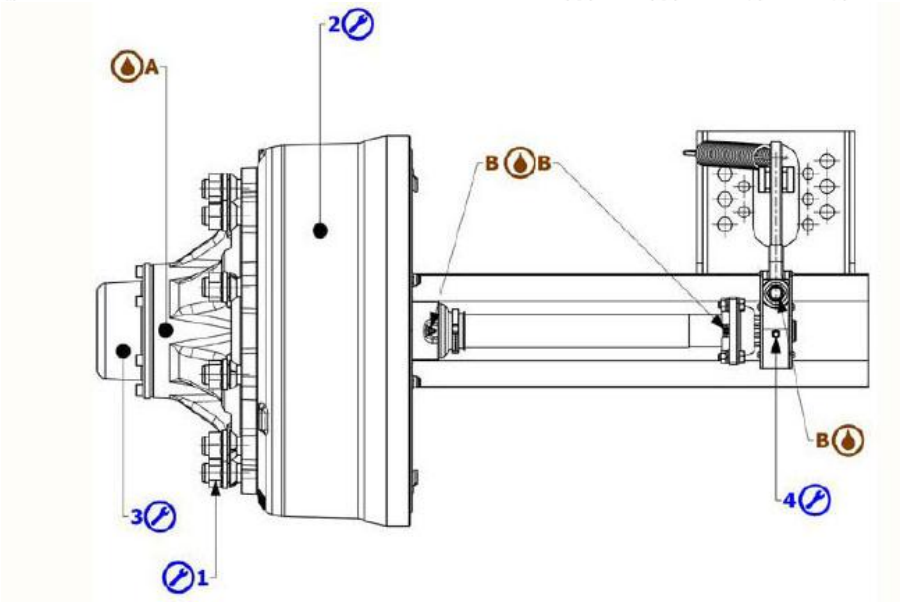
New brake drums and brake discs or pads only achieve optimum braking performance after a few braking manoeuvres. Therefore, run in new brake pads, avoiding long braking manoeuvres and unnecessary heavy braking.

Brake axle with air brakes

Mechanical parking brake (left machine side)

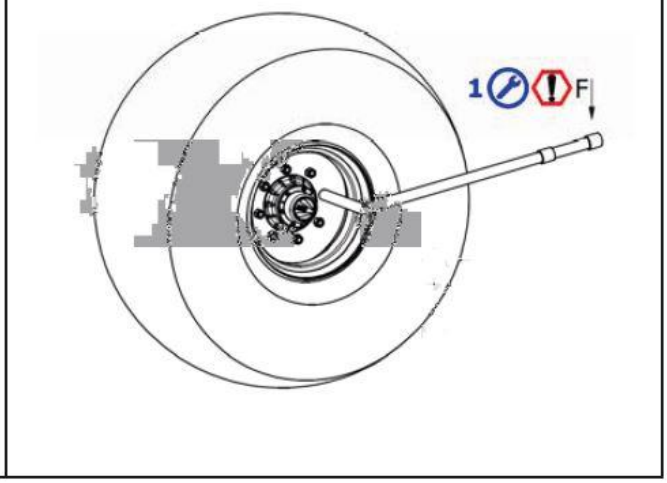
8.6.1. Maintenance and lubrication of the axles:

Rigid and steering axle lubrication and maintenance table Lubrication Maintenance	After the first 10 km of use at full load.	After the first 200 working hours or first 300 km travelled.	Every 500 working hours or every 8500 km travelled.1	Every 1500 working hours or every 25000 km travelled.1	Every 3000 working hours or every 50000 km travelled.1
Lubrication with special **ADR Lithogrease 3** grease					
A – grease change in hub bearings					●
B – brake cam supports			●		
C – brake levers			●		
D – steering rod joints			●		
E – steering hinges			●		
Maintenance					
1 – Wheel nut torque check	●		●		
2 – brake gasket check			●		
3 – bearing gap check and any adjustments		●		●	
4 – brake lever stroke check and any adjustments			●		
5 – steering hinge gap check and any adjustments	●			●	
6 – shock absorber end screw torque check				●	
7 – steering control cylinder fastening screw torque check				●	
8 – steering rod end screw torque check and steering angle adjustment				●	
9 – brake cylinder support screw torque check				●	



1. Wheel nut torque check.

After the first 10 km at full load, every wheel change and every 500 working hours (or every 8500 km travelled) and not over one year of use.
Tighten the wheel nuts as indicated in the table below, using a torque wrench. If a torque wrench is not available, use a pipe wrench with an extension. In the second to last column on the right of the table is the length of the lever corresponding to the required tightening torque, calculated for force F = approximately 60 kg.

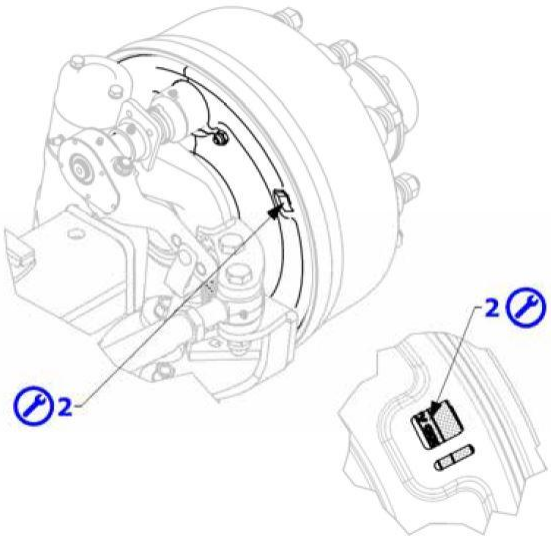


M 18 x 1.5 Tightening torque 270 - 290 Nm

2. Brake gasket check.

Every 500 working hours (or every 8500 km travelled).
Check brake friction gasket wear. Open both inspection windows on the back of the brake and check friction material thickness outside the reference line.

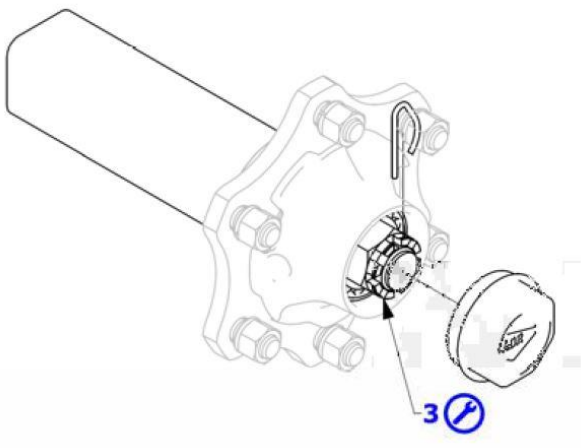
The reference line should always be well visible and, for vehicle safety, it is best to replace the brake friction gaskets when material thickness outside the line is reduced to 2mm. Always use original friction gaskets of the same type as those to be replaced.
Friction gasket features are indicated next to the gasket inside the reference line.



3. Bearing gap check
(version with press-in hub cap)

After the first 200 working hours at full load (or after the first 300 km travelled), afterwards every 1500 hours (or every 25000 km travelled).
Make sure the wheel bearings do not rock. This check is performed by lifting the axle with a jack until the wheel is off the ground and rotates freely. Insert a lever between the ground and tyre and force the wheel up to find any gaps.

Adjustment of bearing mechanical clearance
To register the bearing clearance, refer to **customer instruction ZS018**. For more information, visit www.adraxles.com or contact **Customer Service ADR – Colaert.**



8.6.2. Air brakes:

Trailer brake valve dual-circuit with manual controller.

8.6.2.1. Empty load valve (ELV):

It can be set between empty, half and full load. We recommend full load for road transport and half load for off-road use.

Manually adjustable empty load valve – full load or half load

8.6.2.2. Relay emergency valve (REV) with trailer release valve (TRV):

For releasing the brake when the reservoir is full and the brake hoses are not coupled.

Release valve under the cover

8.6.2.3. Compressed air tank

Drain valve from the compressed air tank daily

8.6.2.4. Maintenance of the air brake system:

Daily maintenance

a) Brake force regulator

- Before starting the journey, move the lever of the trailer brake force regulator to the position corresponding to the load condition. Check the ease of movement of this adjustment lever.
- After uncoupling, close the coupling head with the cover and hang it in the holding device on the towing fork.

b) Air reservoir

- Drain the tank daily

Weekly maintenance

a) With the engine stopped and a tank pressure of 5.5, 7.35 or 8.1 bar, the pointer of the air pressure gauge must remain unchanged for 3 minutes. Any noticeable loss of pressure within this time must be rectified by the workshop.

b) If the stroke of the brake cylinders in the trailer reaches 2/3 of the total stroke, the brake must be readjusted. The condition and fit of the dust protection linings must be perfect.

Quarterly maintenance

a) Clean the pipe filters of the brake units with petrol and dry them. Oil all moving parts and joints on brake valves, brake cylinders and brake linkage.

8.6.3. Hydraulic brake:

Not available in pre series.

8.7. Replacing pick-up tines:

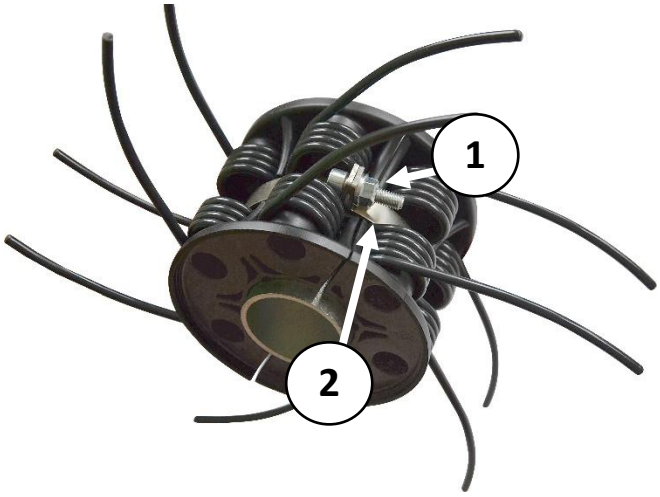
Wear types on pick-up tines:

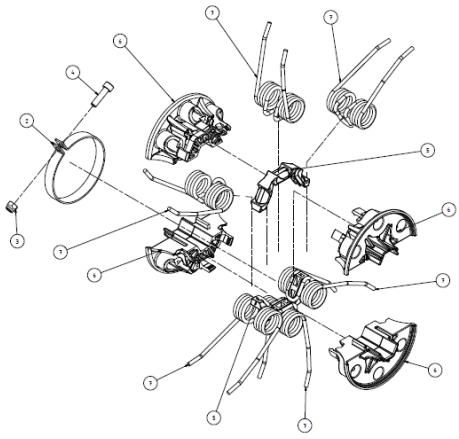
- Wear on the side of the tine legs
- Wear on the tine point; the circumferential circle of the pick-up tines gets smaller
- Tine legs can break off due to material fatigue

Tines should be replaced of the

- Wear to the sides is greater than half the wire thickness;
- The circumferential circle of the tine points has become more than 15 mm smaller in radius;
- A tine leg has broken off;

1) The scraper is coming loose at the top of the affected point.
2) Scrapers can be bent downwards to allow access to the tine disc.



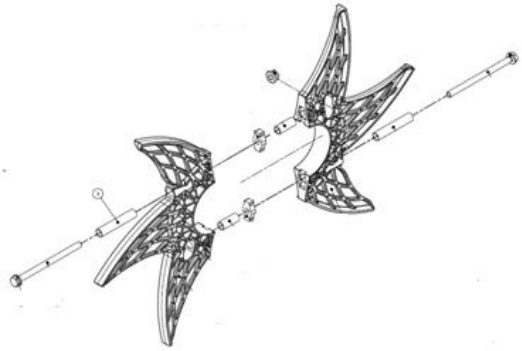


3) Loosen M8 screw (1) on the clamping ring (2).
4) Remove the half-shell and replace damaged tines.
5) Join the tine disc and assemble it with the clamping ring. Tighten the M8 screw with nominal torque.
6) Mount the scraper.

8.8. Replacing rotor tines:

Rotor tines can be damaged by foreign objects. It is not necessary to replace tines immediately. Carry out a replacing of more than 2 tines per tine star are damaged.

The replacement can be performed during the winter inspection.



1. Removing the rotor scraper.
2. Unscrew the rotor tines individually.
3. Insert new tines. Ensure that the sockets are installed correctly according to the drawing.
4. Mount the rotor scraper.

8.9. Replacing wear discs:

Wear discs should be checked daily for wear. Perform the replacement as soon as a war disc is worn down. This will avoid damage to the basic disc.

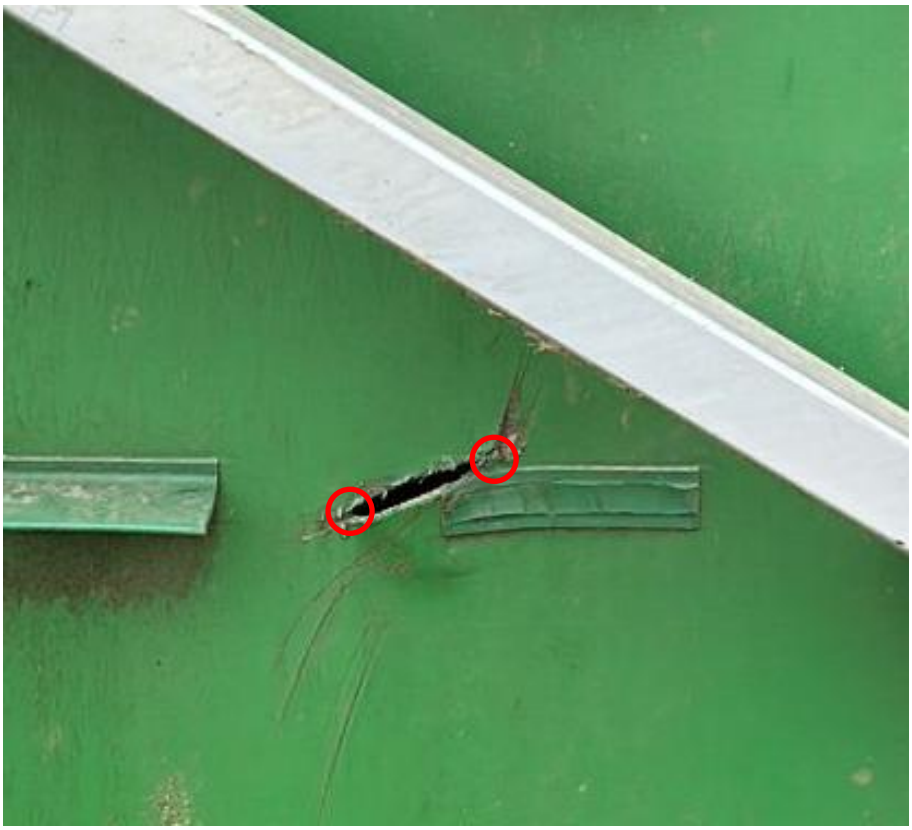
CAUTION!

Damage to the basic disc.
Not only is the wear disc to be replaced but also the basic disc. High follow-up costs.
Check the wear condition of the wear discs daily.

8.10. Repair conveyor belt

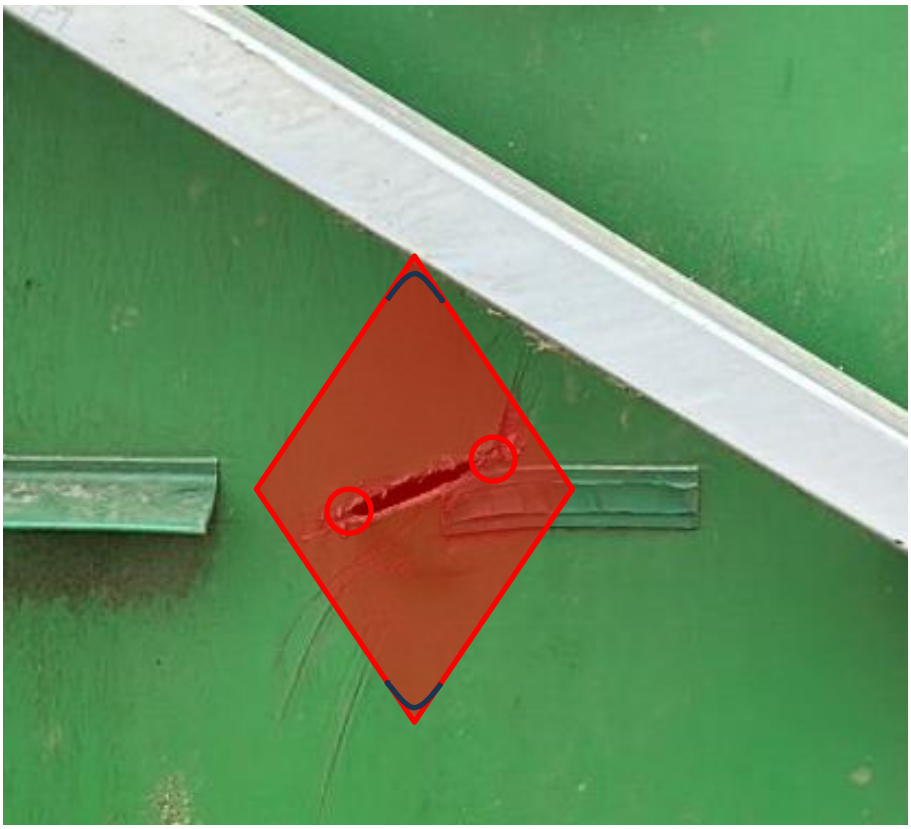
The conveyor belt is particularly robust due to the belt reinforcement on the left and right. However, if the conveyor belt is damaged by foreign objects, the following remedy can be provided:

- at the end of the existing rip, punch out the tape in a round shape. This prevents the rip from working further into the fabric. Cut off any fringes.



- Cleaning:
  Never clean the belt with brake cleaner!
  Clean the belt with warm water and a brush.
  Sand minimally by hand with coarse sandpaper.
  Then degrease with alcohol.

- Cut the patches from single-layer belt material in a diamond shape as shown in the picture. Round off the edges in the direction of running.



- Glue with Pattex. Follow the instructions exactly (apply Pattex on both sides, pressure when gluing, etc.)
  Please pay attention to the drying time.

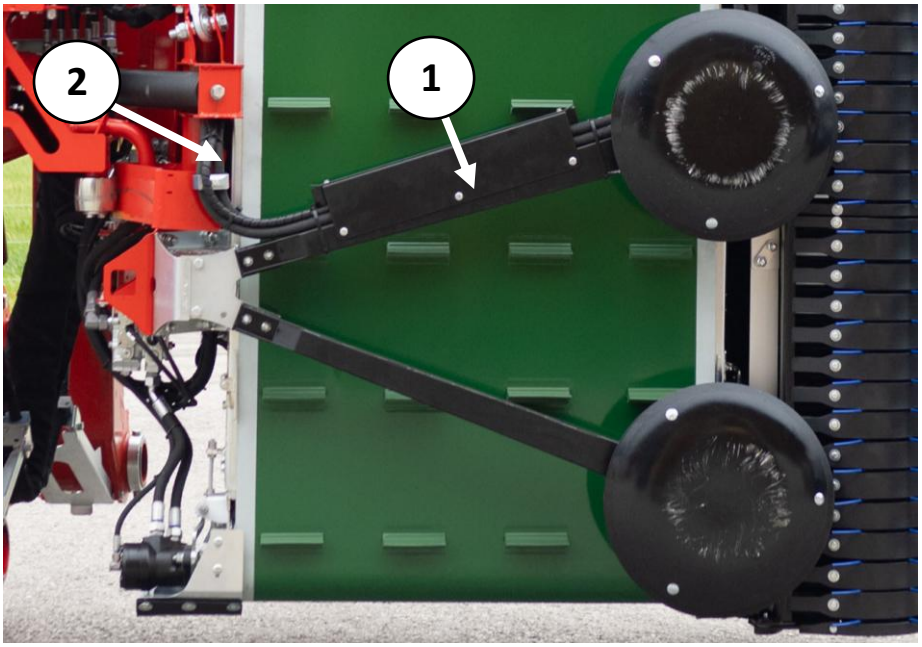
- After gluing, go around the edges again with Pattex. This provides additional protection against the glue peeling off.

8.11. Change conveyor belt:

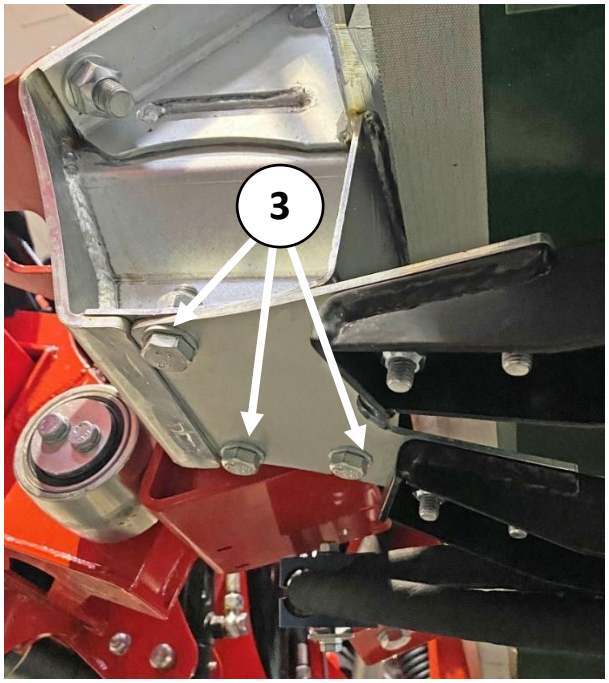
If the tear or slit in the conveyor belt can no longer be stopped, the belt must be replaced. The following steps are required to change the belt (two people are required for some work steps).

8.11.1. Remove the pick-up:

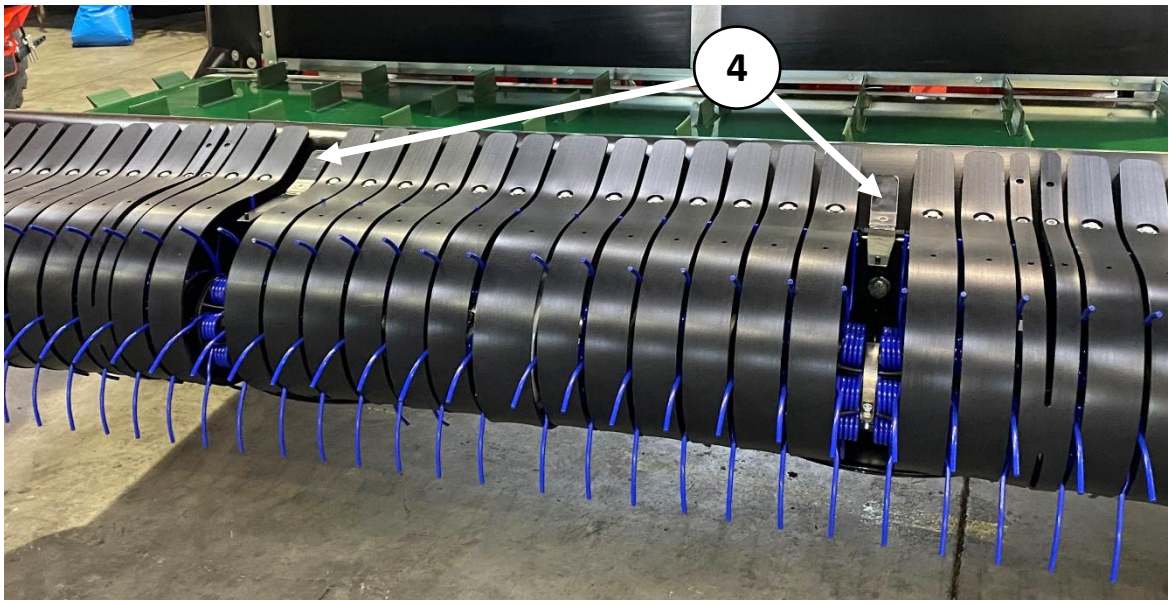
1) Move the machine to the road transport position. Remove the hose cover ① on the truss. Open the clamp ② for the hydraulic hoses so that the truss can be released later.



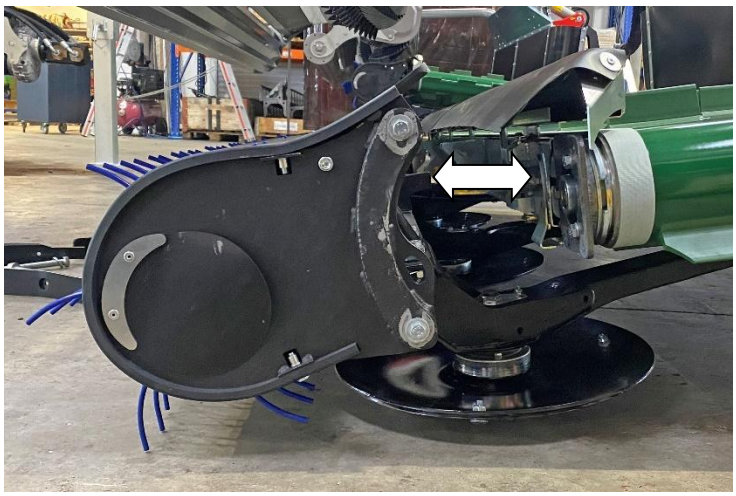
2) Unfold the machine and bring it into working position.
3) Loosen and remove the screws ③ (2x3) on the truss. Note: Never loosen the screw connection of the gusset plate to the truss struts.



4) Unscrew the 7th pick-up scraper ④ from the centre in each direction.



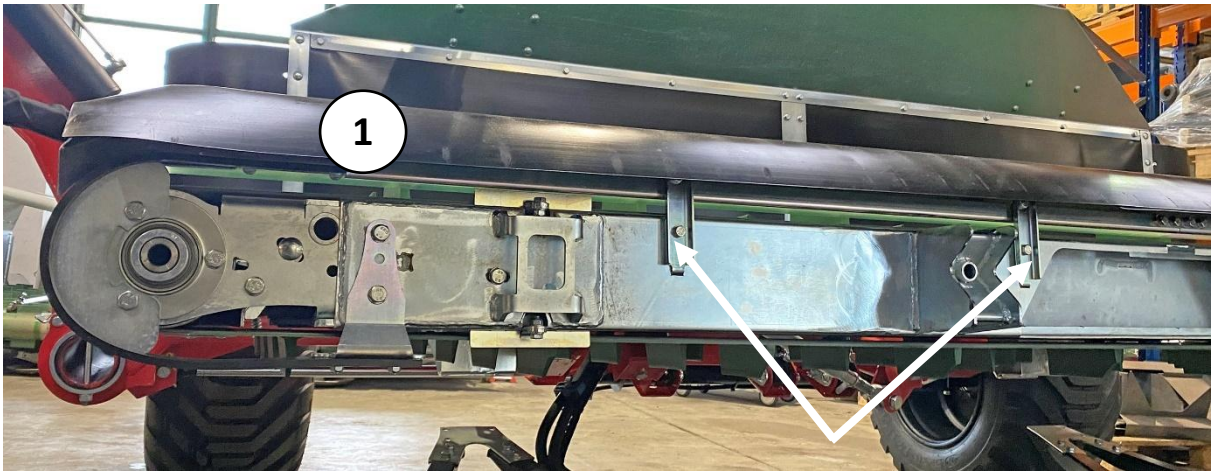
5) Carefully lower the pick-up to the ground. Stop lowering as soon as it rests on level ground.
6) Now unscrew the pick-up using the 2 M16 bolts and carefully drive back a short distance with the tractor and the machine.



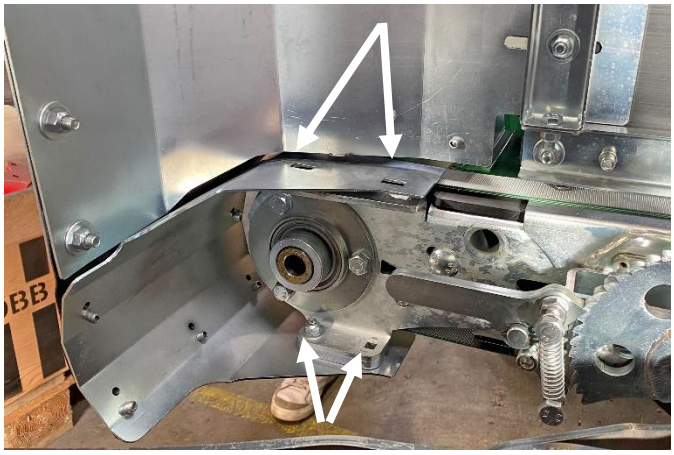
7) Now carefully lift the work unit using the da valve, leaving the pick-up on the ground.

8.11.2. Remove conveyor belt:

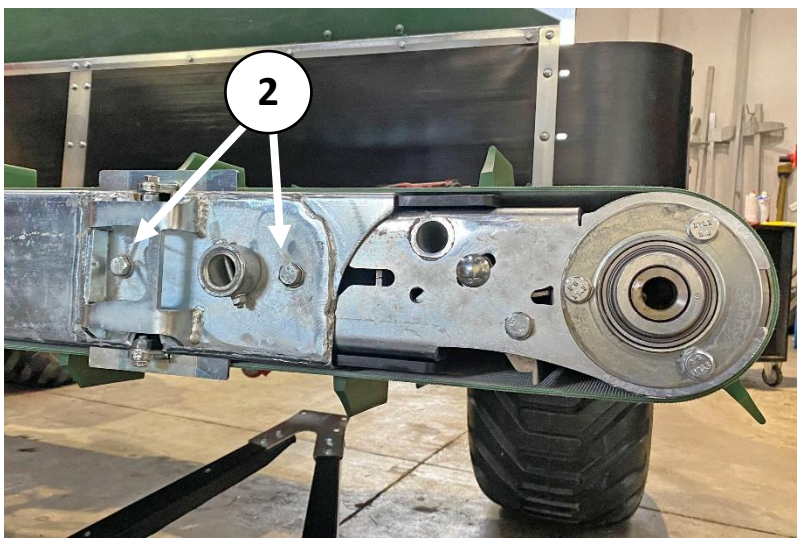
1) Remove the front hinge sealing bar ① (4 screws).

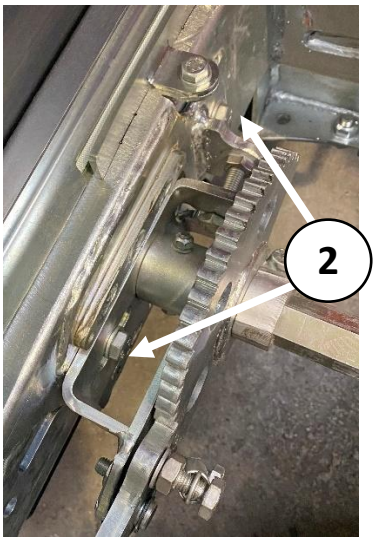


2) Release the screw connection on the outer, rear belt cover.

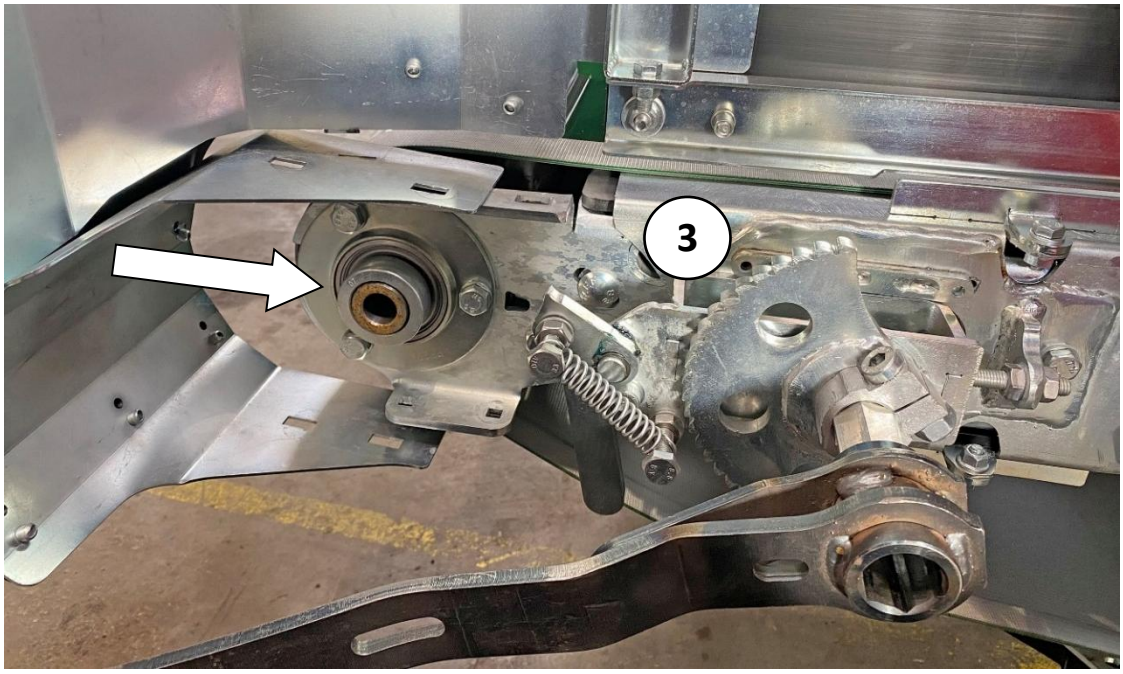


3) Slightly loosen the screws on the quick belt tensioner (2 on the outside of the belt body) ②.





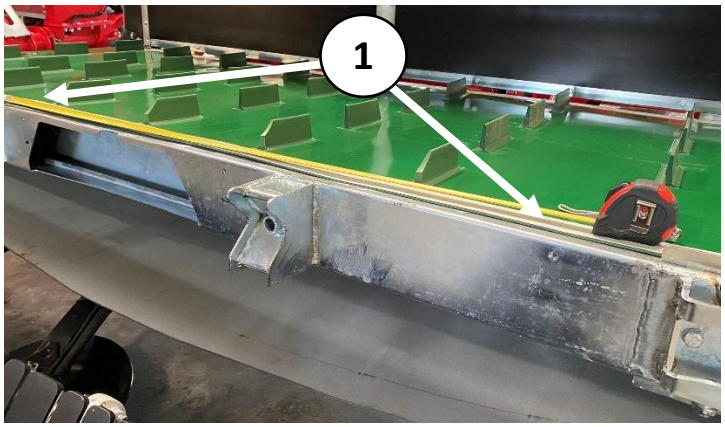
4) Loosen the quick belt tension using a 27 mm ring spanner with extension③ and retract the belt roller completely.



5) The old conveyor belt can now simply be pulled out to the front.

8.11.3. Install a new conveyor belt:

1) Insert new belt (2 people required). Ensure that no damage occurs when fitting the belt.
2) Conveyor belt not tensioned but taut: attach a 1000 mm mark ① to the belt.
3) Then tension the belt using the quick tensioner until the 1000 mm mark is 1006-1008 mm.



4) Fit the front belt cover
5) Tighten the quick belt tensioner on the front side.

8.11.4. Re-install pick-up:

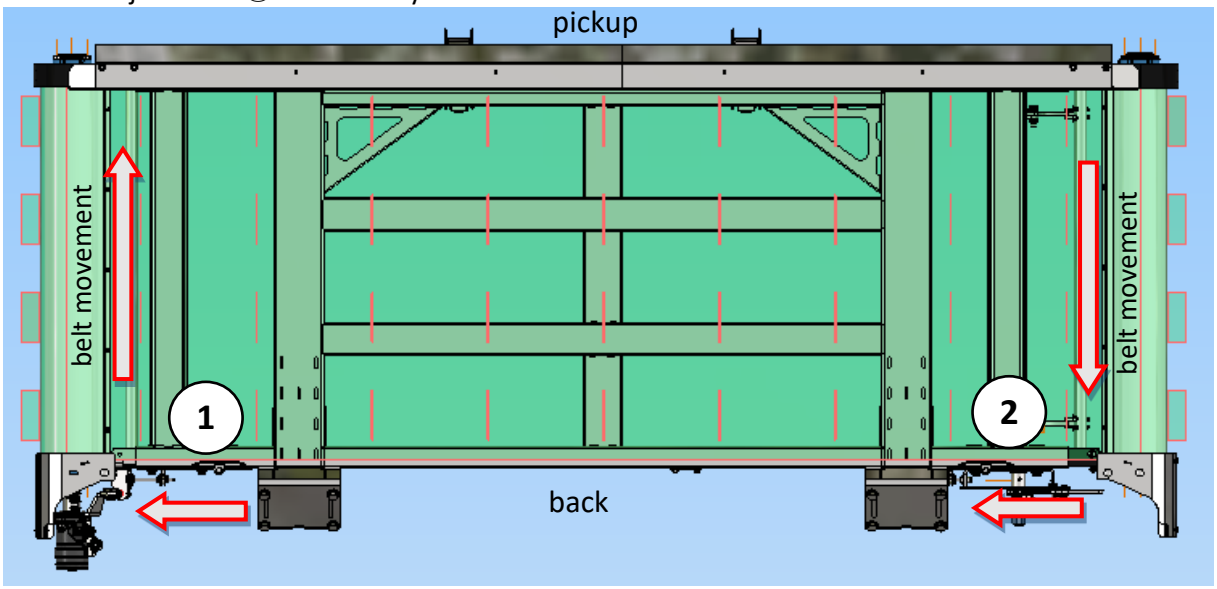
1) Re-install the pick-up in reverse procedure.
    a. Lower the working unit via the da valve and drive forwards with the tractor to be able to refit the pick-up to the conveyor substructure (a second person is absolutely necessary).
    b. Screw the pick-up to the belt substructure.
    c. Screw on the rear truss
    d. Refit the hose clamp and hose guide.
2) Carry out belt test run. (see chapter 8.10.5. belt test run / belt adjustment).
3) Tighten the quick belt tensioner on the rear side.
4) Tighten the screws on the outer rear belt cover.

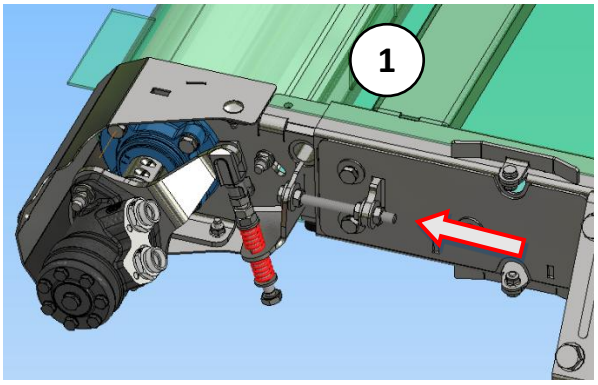
8.11.5. Belt test run / belt adjustment

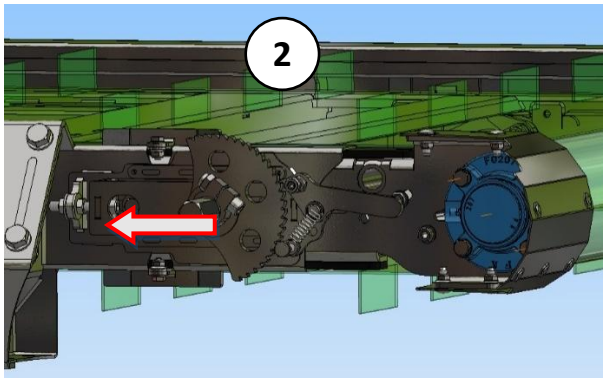
For a long service life of the conveyor belt, it is necessary to ensure that the belt runs in the centred position!!! If it does not run properly, there will be increased wear on the outside of the belt, damage or even complete destruction.

Readjust the belt rollers as required using the rear fine adjustment.

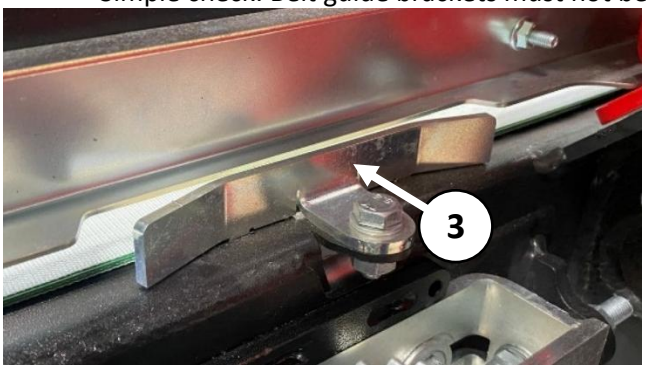
- If the conveyor belt runs too far back, move the rear belt roller outwards using the fine adjustment ①. The conveyor belt moves forwards towards the pick-up.
- - If the conveyor belt is running too far forwards, adjust the rear belt roller inwards using fine adjustment ②. The conveyor belt moves backwards towards the back.





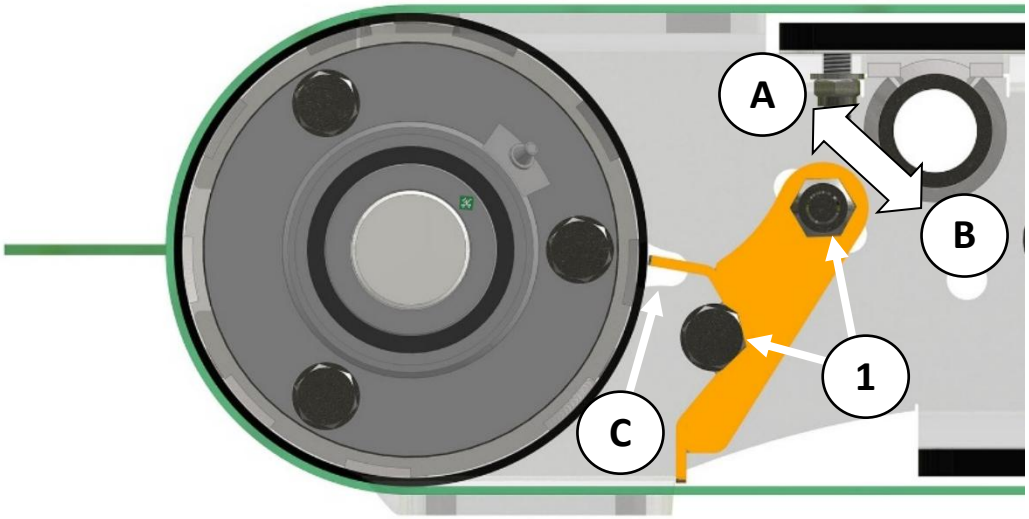


- The belt guide bracket ③ should not be in constant contact with the conveyor belt. Simple check: Belt guide brackets must not become hot. Check wear on the inside.



8.12. Adjustment roller scraper:

1) Slightly loosen the screws ① on the front and back of the belt, it should still 'jam' a little.
2) Adjust the slotted hole in direction (A): Scraper comes closer to the roller.
3) Adjustment in slotted hole direction (B): Scraper moves further away from the roller.
4) Check the scraper via the opening (C) next to the belt roller.
5) After adjustment, tighten screws ① again. Carry out a test run.



Cleaning the roller if neccessary

1. adjustment direction (A) until the dirt on the roller is removed. Let the belts run in both directions.
2. then move the scraper away from the roller until no more grinding noise can be heard.
3. the distance should be as small as possible for a good scraping effect (!)
4. tighten the screws again.

8.13. Maintenance and change of hydraulic oil:

8.13.1. Oil maintenance:

Drain water and dirt once a year using the drain plug. A small amount is sufficient for this. Then carefully close the screw again.

Oil drain screw

8.13.2. Oil change:

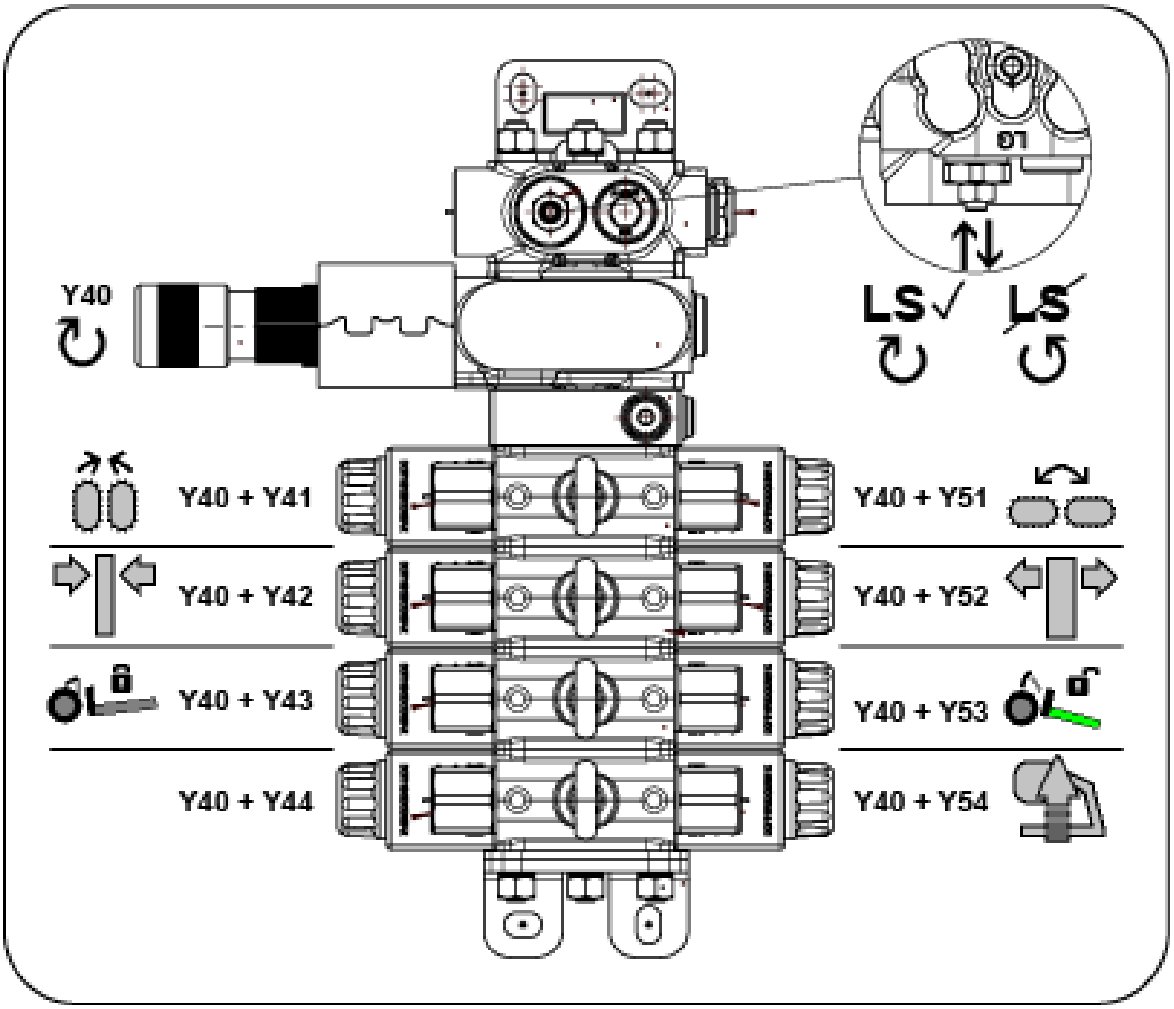
Change the hydraulic oil after 1000 operating hours, as well as change of return filter. If the oil gets cloudy, the oil and filter change is to be done immediately.

8.14. Cleaning of machine parts:

When cleaning the machine, make sure that no damage is caused to the seals on the bearings and electric connectors. Therefore, never use the high-pressure cleaner to spray pressurised water against the bearing seals and connectors.

9. Hydraulic emergency operation

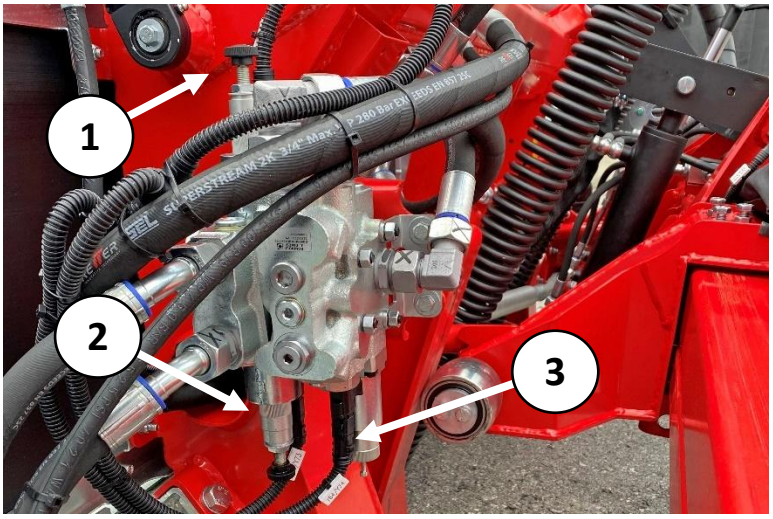
9.1. Emergency operation valve block:



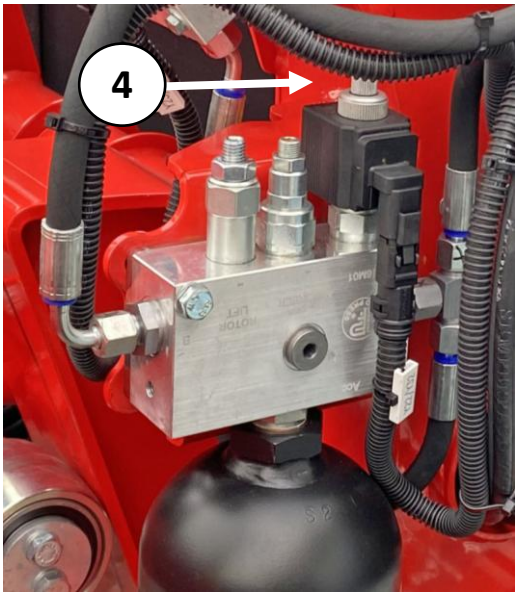
For emergency operation, screw in the adjusting screw Y40 completely. Switch the respective hydraulic function by pressing the emergency control directly on the valve.

9.2. Emergency operation belt valve:

- Mechanical emergency confirmation of the belt valve in the event of a wire damage (valves can no longer be operated by electromagnetic pressure).
- Turn the screw ① or ② clockwise according to the desired belt direction. Select the belt speed via the screw ③: turn further inward clockwise => the belt runs faster.



- If the electronic is defective, it is still possible to continue working with the machine. Both thumb screws on the rotor module ④ (Y22/32) and the rotor lock valve ⑤ (Y23/33) must be unscrewed. For road transport, they must be screwed back in so that the rotor is locked.



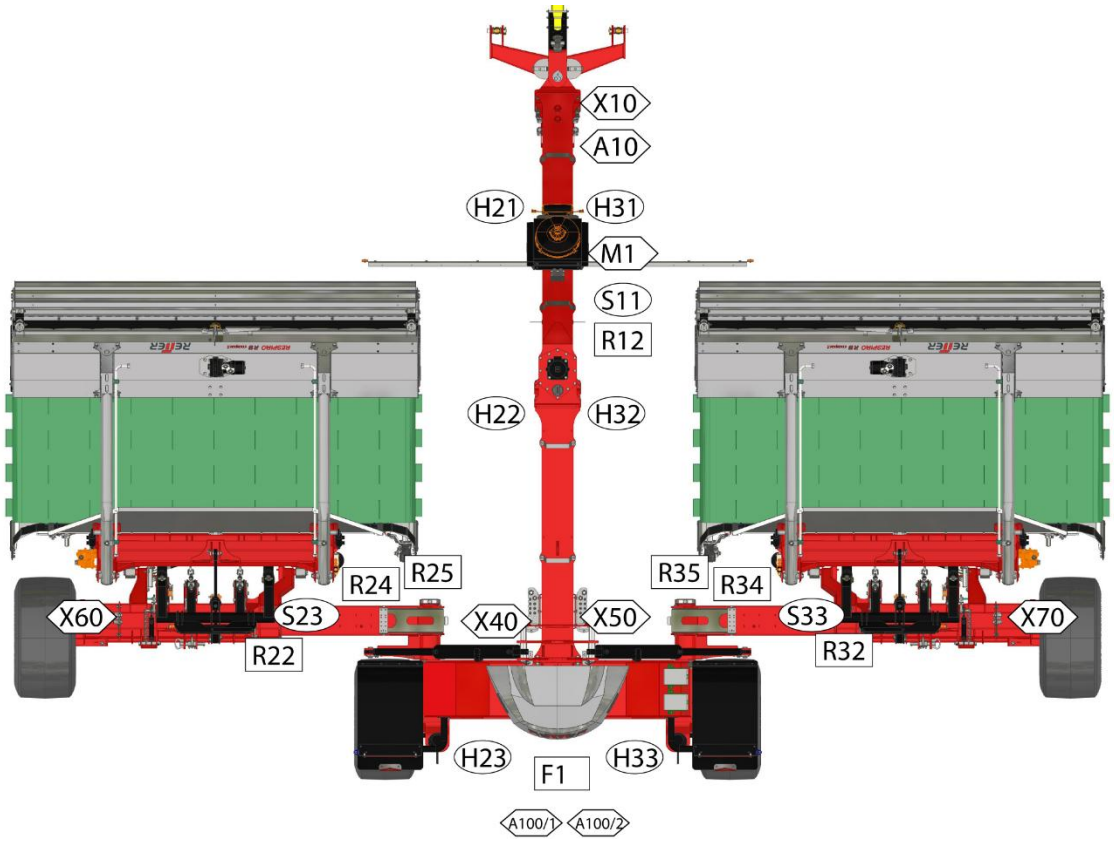
10. Electro- and hydraulic plan:

10.1. Legend

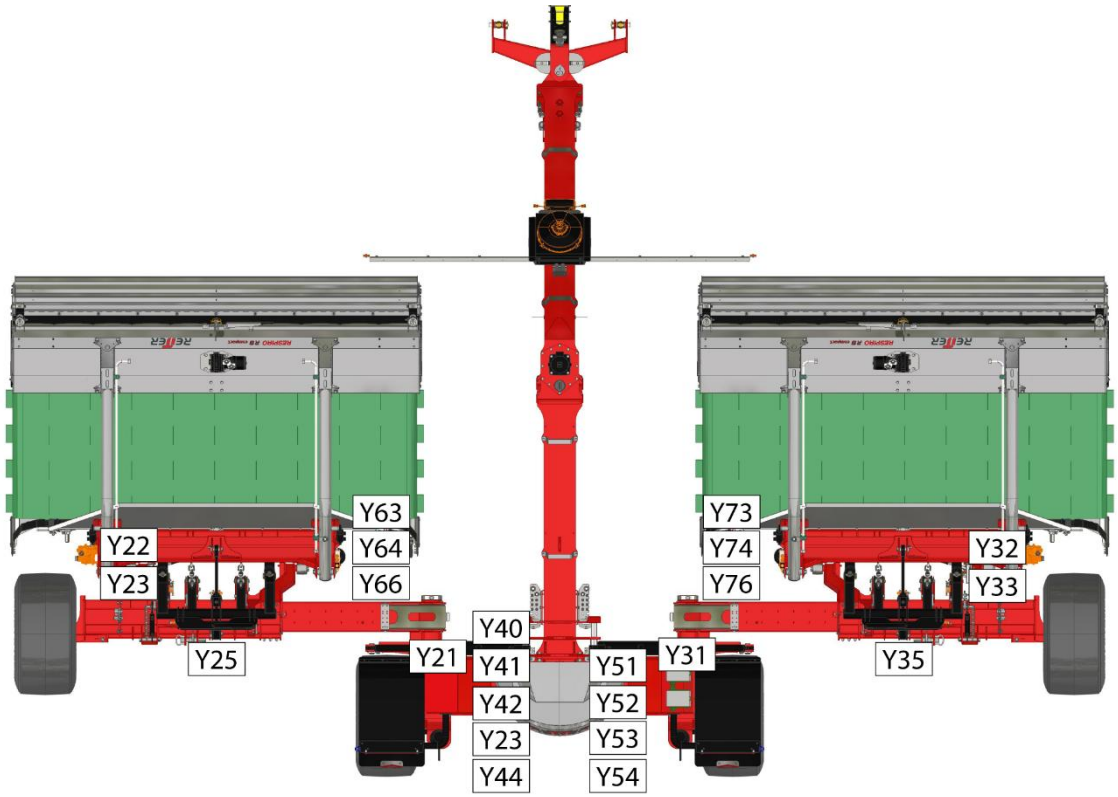
nr.	description (picture 1)	nr.	description (picture 2)
X10	Connecting cable plug	Y21	Lowering brake valve boom left
X40	Interface wiring harness centre left	Y31	Lowering brake valve boom right
X50	Interface wiring harness centre right	Y22	Rotor valve left
X60	Interface wiring harness carriage left	Y32	Rotor valve right
X70	Interface wiring harness carriage right	Y23	Rotor lock valve left
F1	Fuse box	Y33	Rotor lock valve right
A10	Radiator module	Y25	Hoist lock valve left
A100/1	CAN control connector large	Y35	Hoist lock valve right
A100/2	CAN control connector small	Y40	Pilot valve
H21	Front left headlight	Y41	Extend boom cylinder
H31	Headlight front right	Y51	Retract boom cylinder
H22	Side left headlight	Y42	Extend locking cylinder
H32	Headlamp side right	Y52	Retract locking cylinder
H23	Rear left headlight	Y43	Extend slide cylinder
H33	Rear right headlight	Y53	Retract slide cylinder
M1	Oil cooler	Y44	Retract rotor cylinder
S11	Fill level sensor	Y54	Extend rotor cylinder
R12	Temperature sensor	Y63	Belt valve left Direction
S23	Linkage sensors left	Y64	Belt valve left Speed
S33	Linkage sensors right	Y66	Belt valve left direction
R22	Rake height locking left	Y73	Belt valve right Direction
R32	Rake height locking right	Y74	Belt valve right Speed
R24	Working width left	Y76	Belt valve right Direction
R34	Working width right		
R25	Boom sensor left		
R35	Boom sensor right		

10.2. Position sensors and plugs:

picture 1

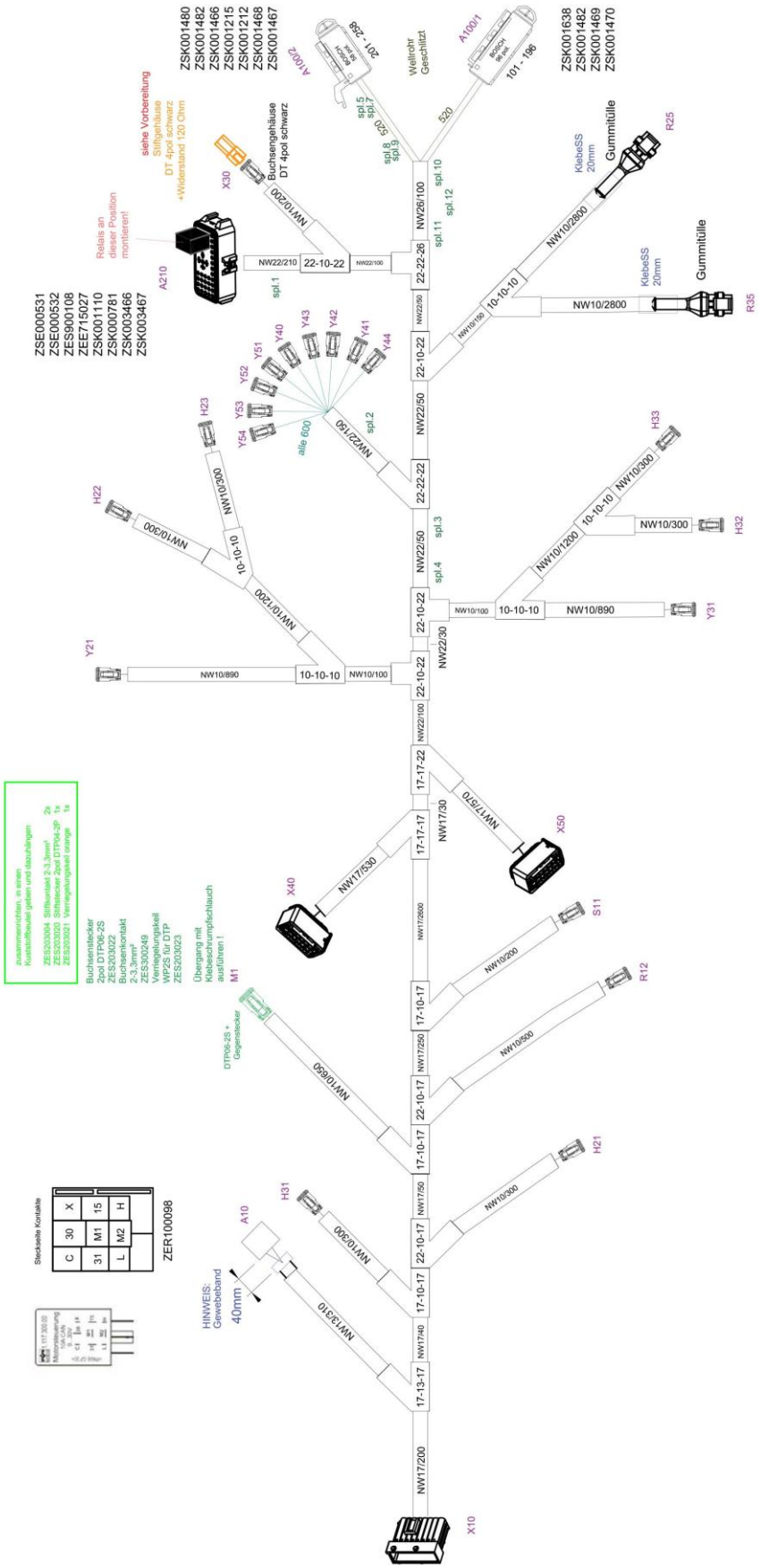


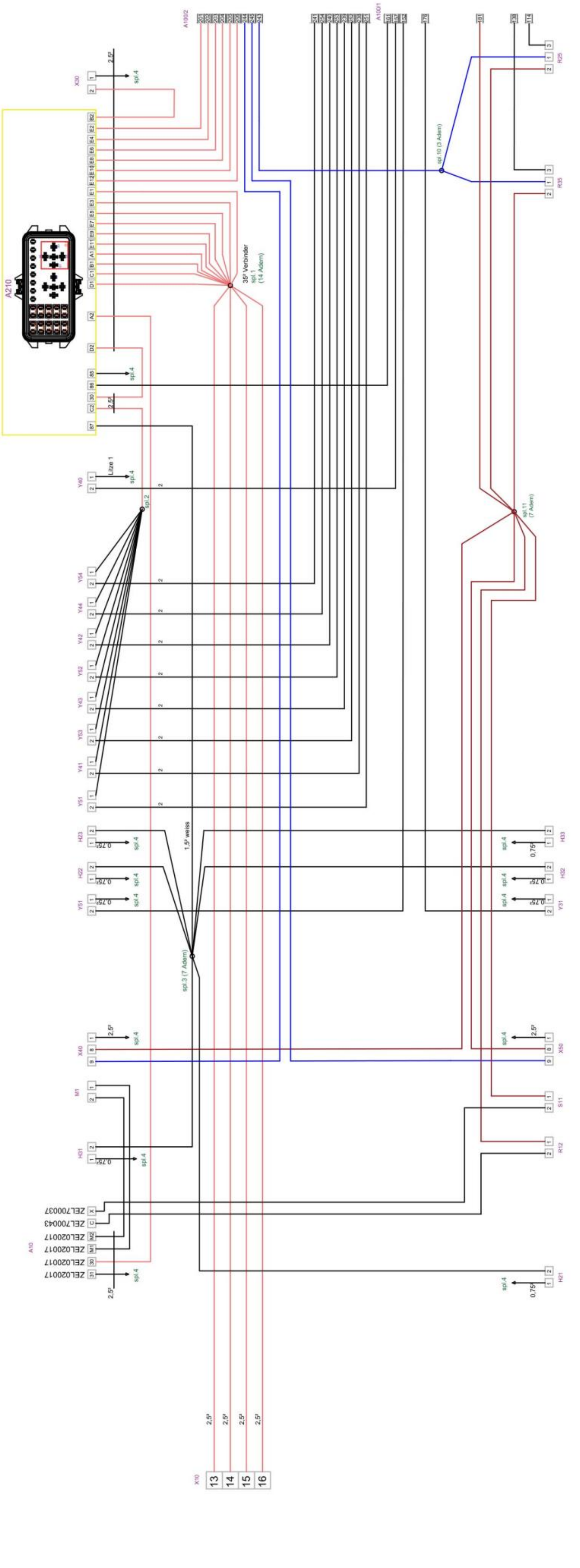
picture 2



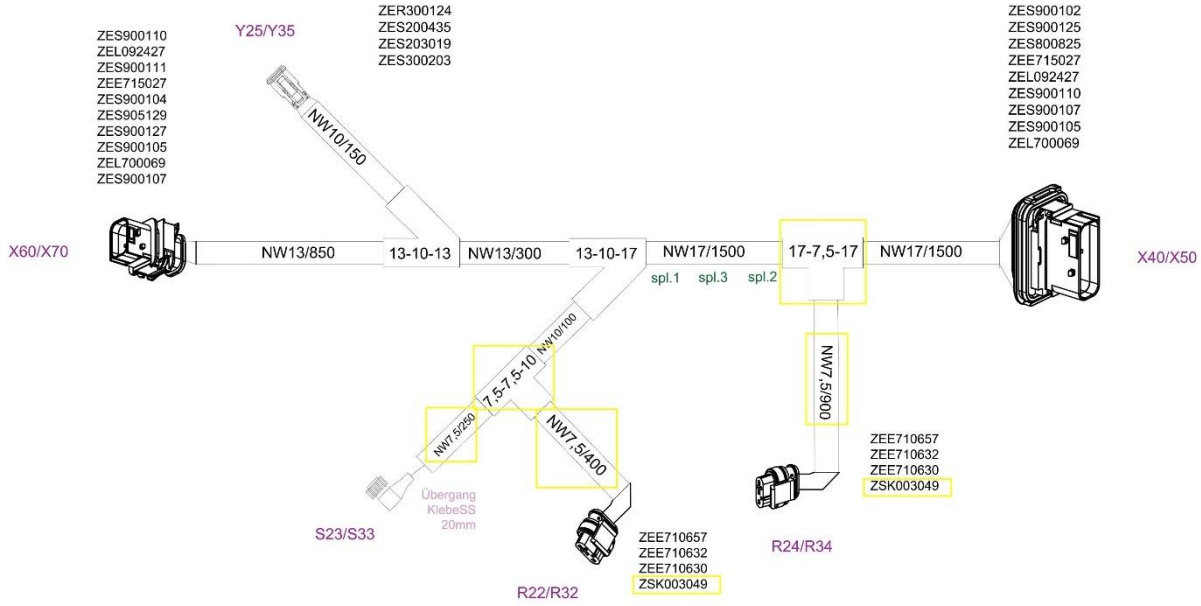
10.3. Electro plan

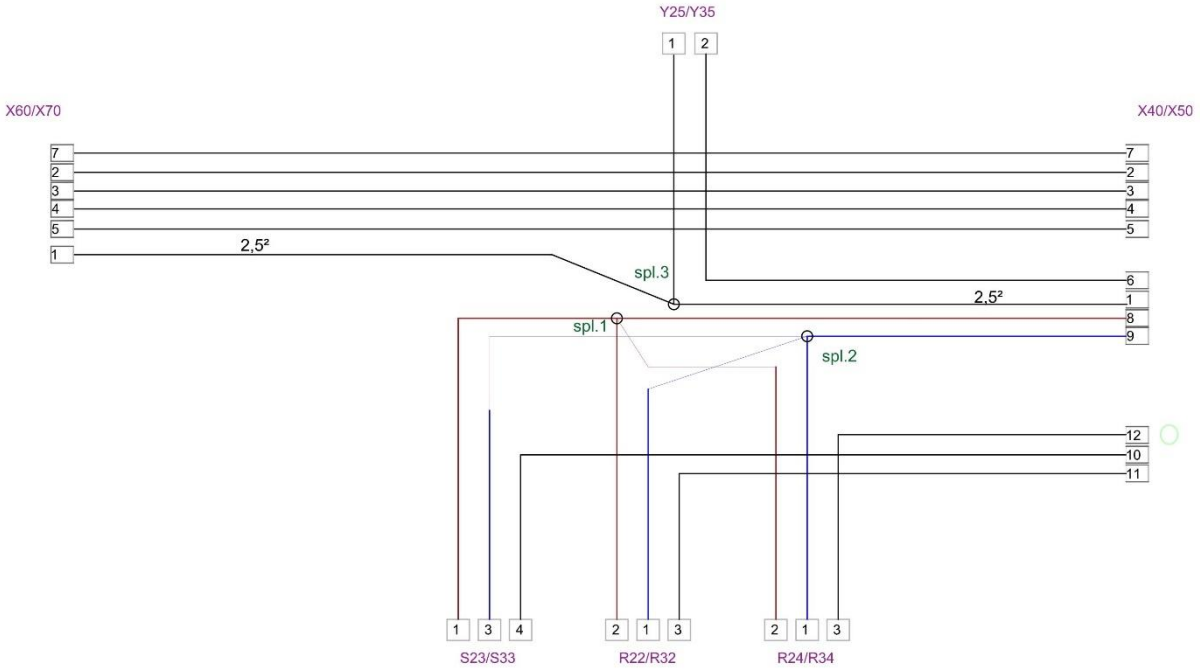
10.3.1. Central harness ISOBUS



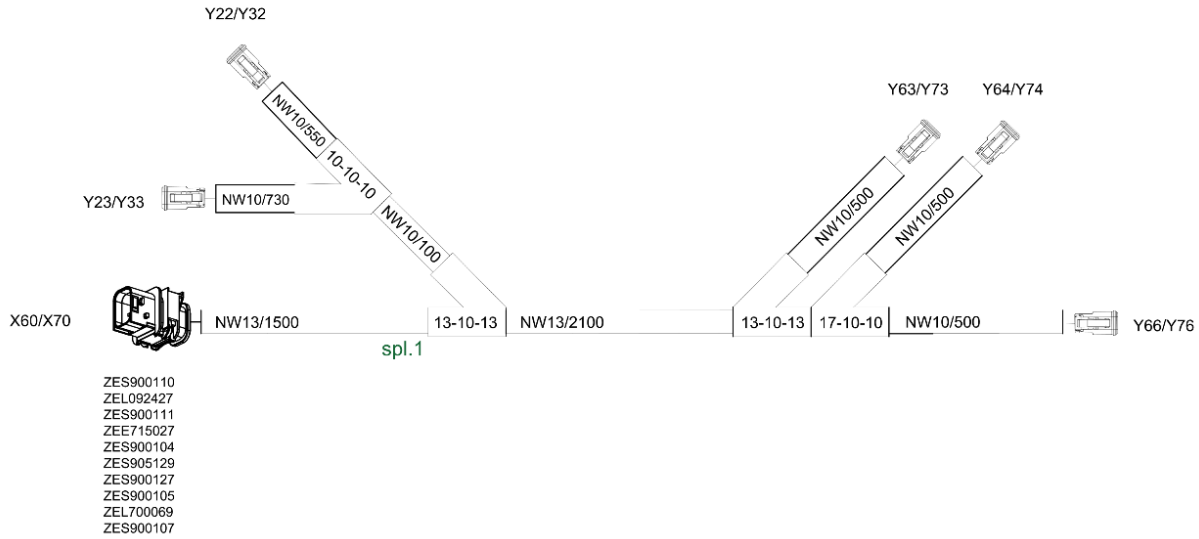

A210
X10
13
14
15
16
ZEL700037
ZEL700043
ZEL020017
ZEL020017
ZEL020017
ZEL020017

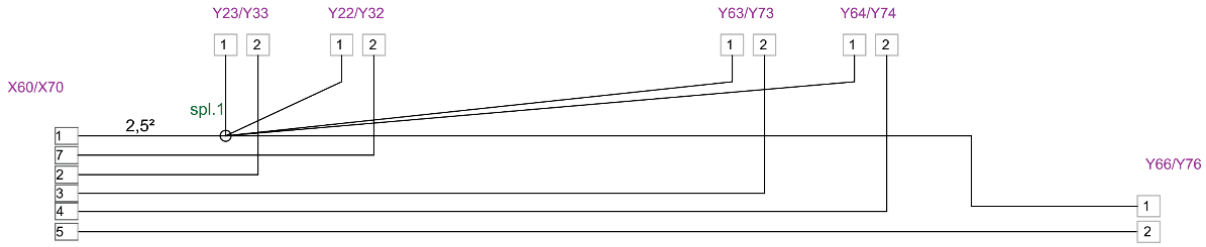
10.3.2. Harness on carriage:





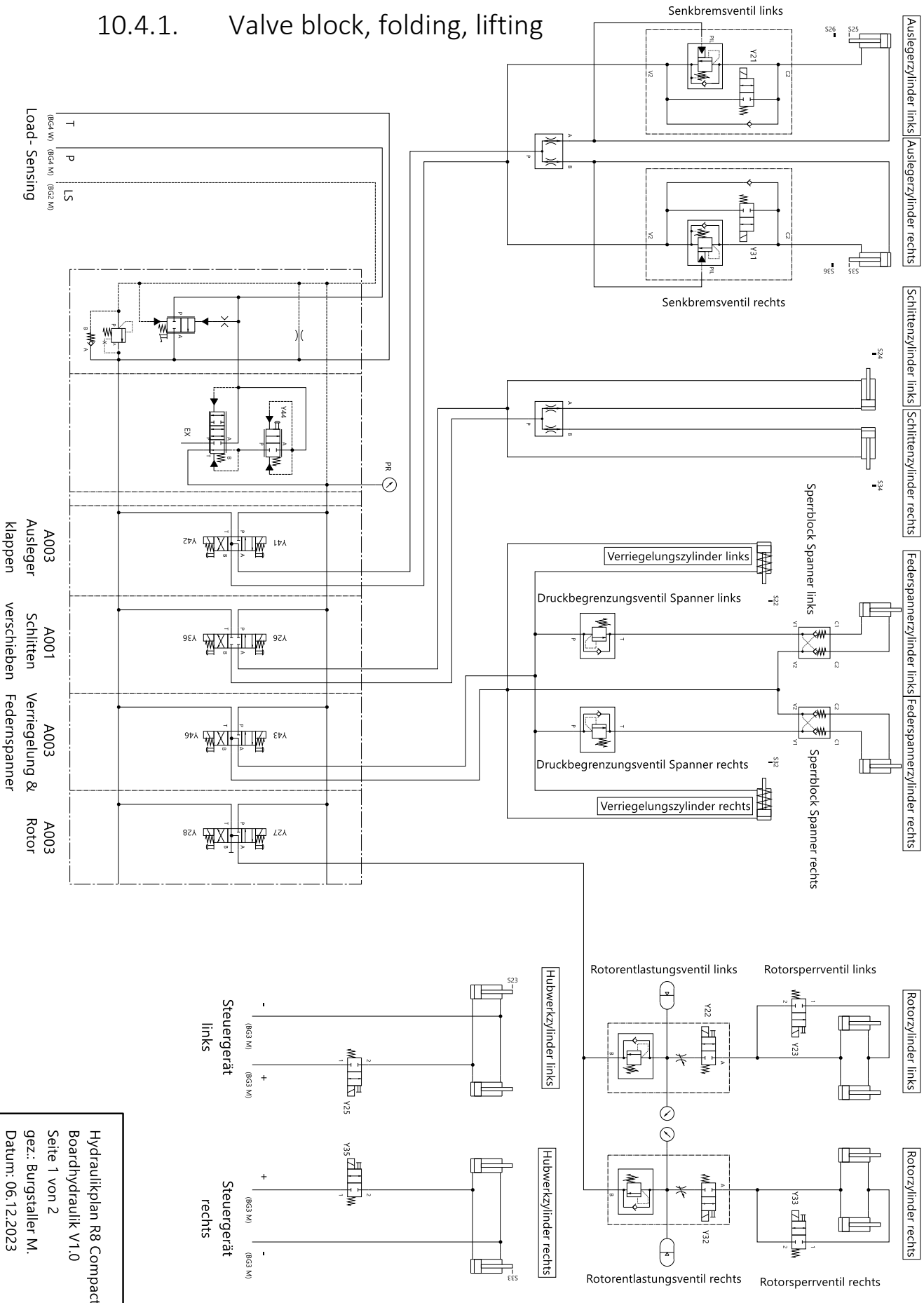
10.3.3. Harness on working unit:





10.4. Hydraulic plan

10.4.1. Valve block, folding, lifting



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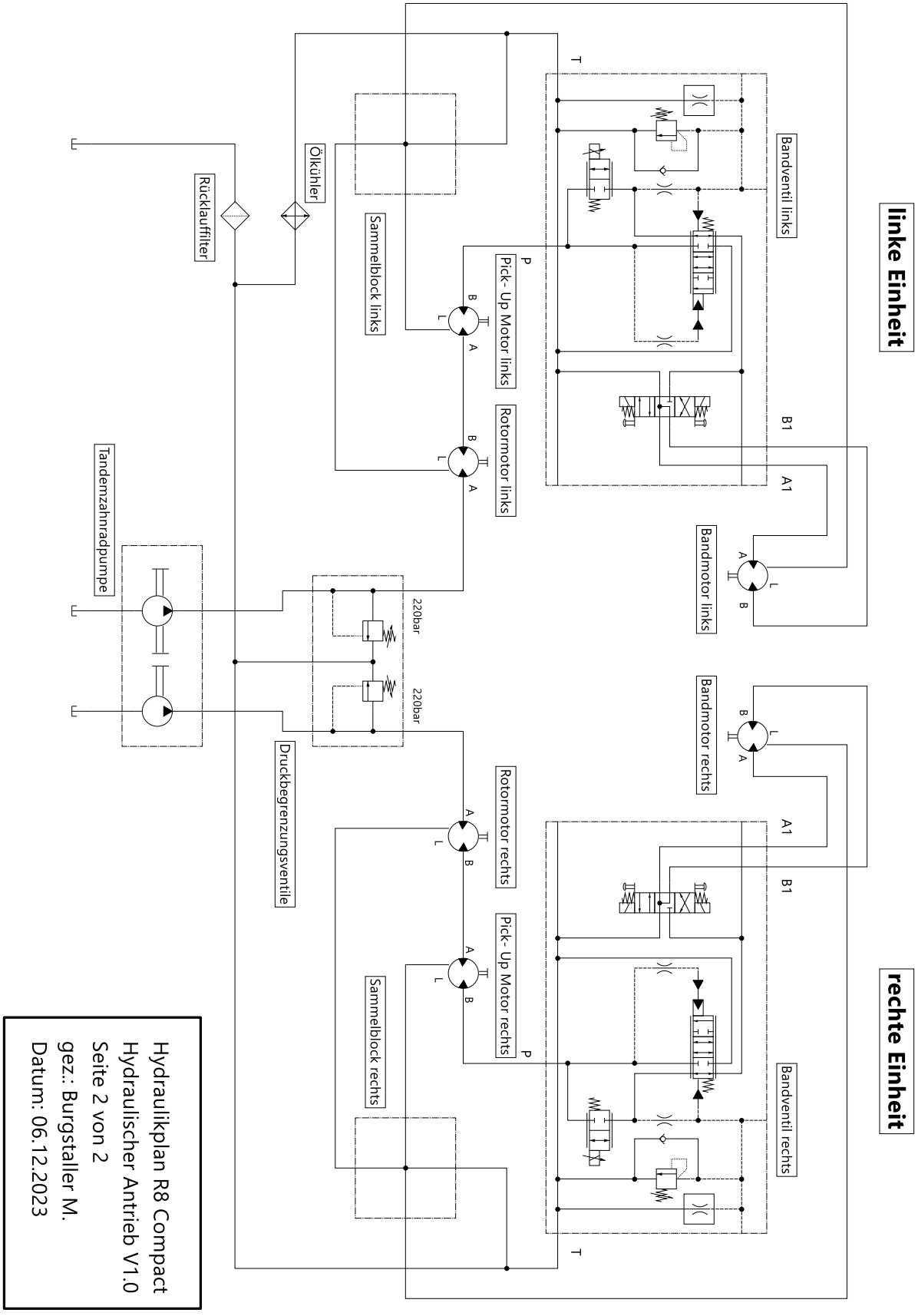
Boardhydraulik V1.0
Seite 1 von 2
gez.: Burgstaller M.
Datum: 06.12.2023

10.4.2. On board hydraulic:



11. Useful tips

11.1. Parking without folding together

- If possible, park the machine in a hall or in the shade.
- Slowly lower both working units, then move them in in floating position
- Lower the supporting foot and switch off the tractor
- Disconnect the connections and remove the PTO shaft
- Use wheel chocks on steep terrain
- Lower the lower links and extend them

12. Storage tips

The following storage instructions increase the longevity of the product

The machine should be parked on a flat and even surface.

- Pick-up is distorted as little as possible. Increases the longevity
- Pick-up tines cannot be damaged

12.1. Parking outdoors

- Do not park the machine in strong sunlight. This can lead to malfunctions due to the build-up of pressure in the hydraulic lines.
- To protect the plastic part, it is recommended to park the machine in the shade.

12.2. Winter storage

- Clean machine
- Grease / Lubricate
- Replace wear parts as required
- Check tire pressure
- Touch up possible defects to the paint
- Best stored under a roof
- In case of cold, do not activate the machine at full throttle
- Store control terminal in a dry location

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