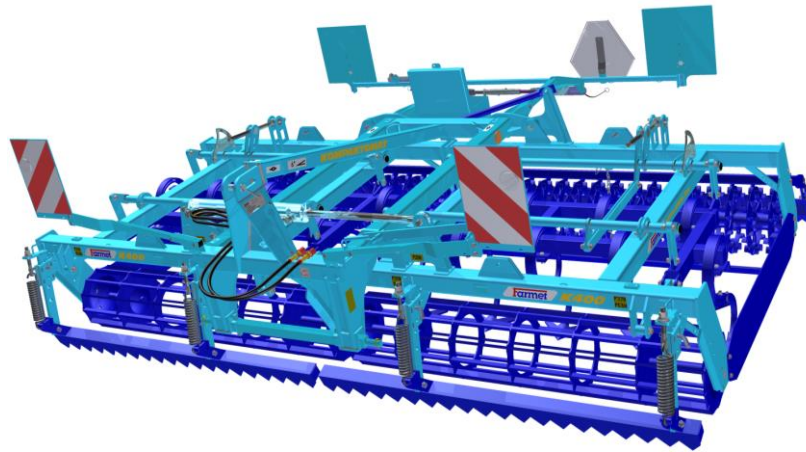


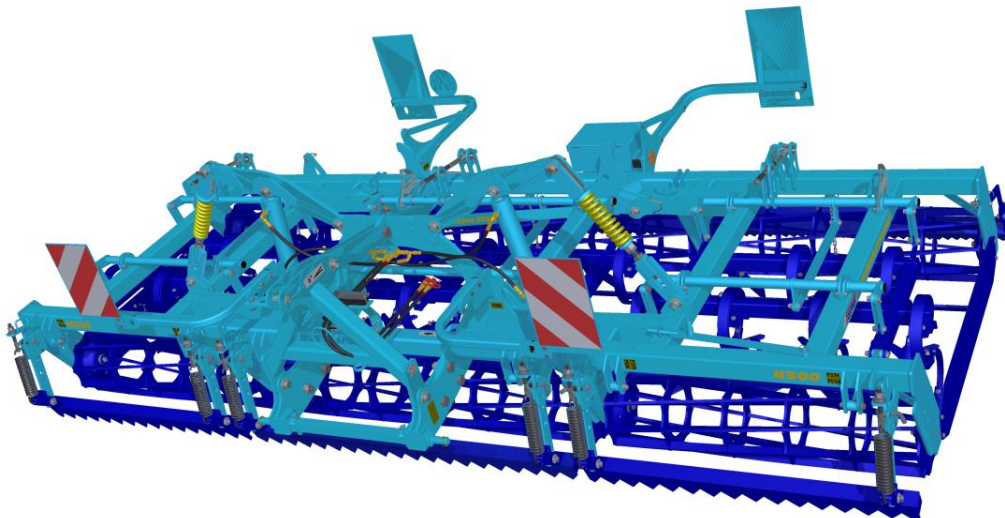
# OPERATING MANUAL

# **KOMPAKTOMAT**

## **K400NS**



## **K500NS | K600NS**



Edition: 11 | effective from: 1. 8. 2023



Dear customer,

Mounted machines **KOMPAKTOMAT** are quality products of Farmet a.s. Česká Skalice.

You can fully utilise the advantages of your machine after thoroughly studying the operating manual.

The serial number of the machine is punched on the production label and written in the operating manual (see MACHINE SPECIFICATION). This machine serial number must be stated whenever ordering spare parts for possible repairs. The production label is located on the middle frame near the tow bar.

Use only original spare parts for these machines according to the **Spare parts catalogue** officially issued by the manufacturer, Farmet a.s. Ceska Skalice.

## **POSSIBILITIES OF USE OF YOUR MACHINE**

**KOMPAKTOMAT** is intended for presowing preparation of soil as a subsequent operation after ploughing or stubble breaking with incorporated plant residues.

### **MACHINE SPECIFICATION:**

TYPE OF MACHINE KOMPAKTOMAT

--

SERIAL NUMBER OF MACHINE

--

USED EQUIPMENT:

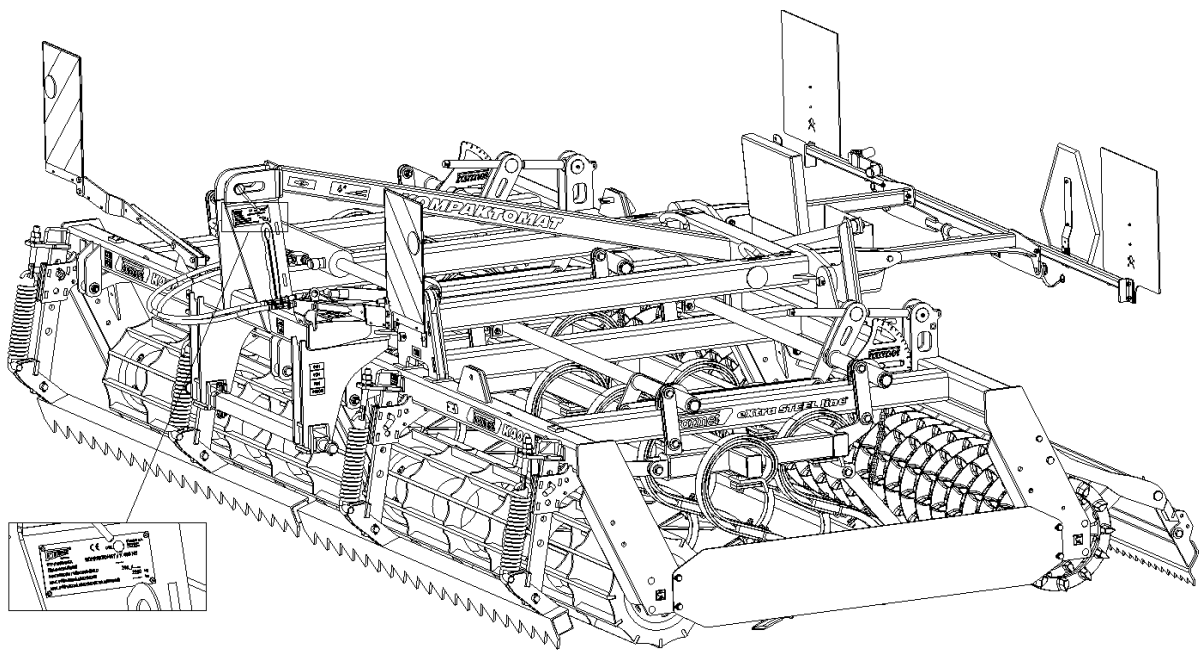
.....

.....

.....

.....

.....



## CONTENTS

BASIC DESCRIPTION OF THE KOMPAKTOMAT MACHINE.....	4
Machine limit parameters.....	6
Safety statement.....	6
A. GENERAL INSTRUCTIONS FOR USE.....	6
Protective tools.....	7
B. MACHINE TRANSPORT USING TRANSPORT MEANS.....	7
C. MACHINE HANDLING USING LIFTING EQUIPMENT.....	8
D. WORK SAFETY LABELS.....	8
1. DESCRIPTION.....	12
2. WORKING PARTS.....	12
3. MACHINE ASSEMBLY AT THE CUSTOMER.....	16
4. COMMISSIONING.....	16
4.1 Agregation to a tractor.....	16
4.2 Hydraulic of the machine.....	17
4.3 Folding and unfolding the machine.....	20
4.3.1 Folding the machine into the transport position.....	21
4.3.2 Unfolding the machine into the working position.....	21
5. MACHINE TRANSPORT ON ROADS.....	22
6. ADJUSTING THE WORKING PARTS OF THE MACHINE.....	23
6.1 Adjusting the position and depth of the track cultivators.....	23
6.2 Adjusting the spring-mounted front leveller.....	24
6.3 Adjusting the components of working rollers.....	26
6.3.1 RV – ring rollers.....	26
6.3.2 SV – segmented rollers.....	26
6.4 Adjusting the depth of the share section.....	27
6.4.1 MH- mechanical depth setting.....	27
6.4.2 HH- hydraulic depth setting.....	28
6.5 Adjusting the leveller height behind shares.....	28
6.6 Setting the angle of the rear leveller.....	29
6.7 Folding and unfolding side frames.....	29
6.7.1 Adjusting the folding drawbar spring-L <sub>p</sub> .....	30
6.7.2 Adjusting the length of the drawbar-L <sub>t</sub> .....	31
7. AGGREGATION WITH OTHER EQUIPMENT.....	32
7.1. Lubrication plan for the machine.....	33
7.2. Replacement of worn shares.....	34
7.2.1 Replacement of worn shares on the machine K400NS.....	34
7.2.2 Replacement of worn shares on the machine K500NS, K600NS.....	34
7.3. Replacement of the working roller bearings.....	35
7.3.1 Using the tool for bearing disassembly and assembly.....	36
7.3.1.1 Complete bearing disassembly.....	37
7.3.1.2 Disassembly of the ring.....	38
7.3.1.3 Assembling bearings onto pins.....	39
7.3.2 Using spacer.....	40
7.4. Machine storage – Long-term machine shutdown:.....	41
8. INSTALLING TRACK CULTIVATORS BEHIND THE MACHINE.....	42
8.1. Track cultivators for K400NS.....	42
8.2. Track cultivators for K500NS, K600NS.....	43
9. PROTECTION OF ENVIRONMENT.....	44
10. MACHINE DISPOSAL AFTER SERVICE LIFE EXPIR.....	44
11. SERVICING AND WARRANTY CONDITIONS.....	44
CE Certificate of Conformity.....	45

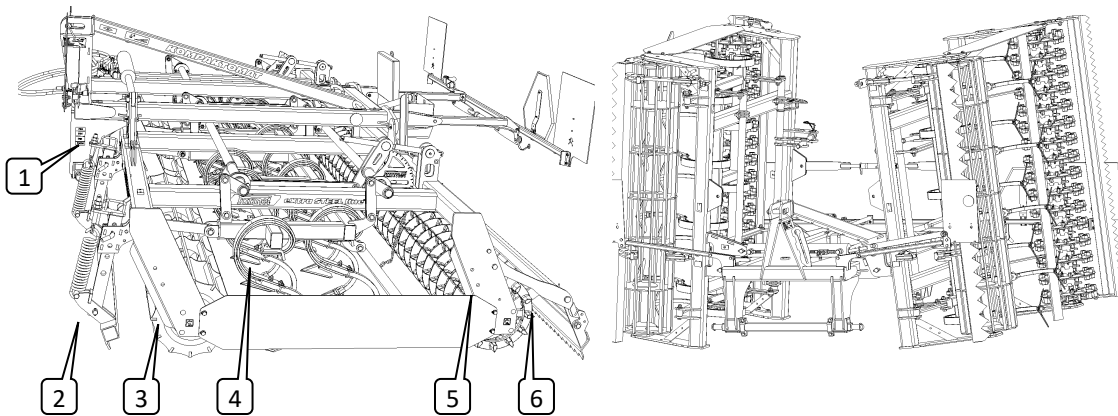
## BASIC DESCRIPTION OF THE KOMPAKTOMAT MACHINE

The modular concept of the Kompaktomat machine design allows for variable use of its various alternatives. The machine is aggregated to the tractor using the rear three-point suspension. Furthermore, to improve the function in particular conditions, it is possible to change the working parts of the machine such as the type of front levellers, type of front rollers, type of share sections and type of rear rollers. To improve the processing quality, Kompaktomat machines can be standardly equipped with track cultivators with chisel ploughshares. To increase productivity, Kompaktomat machines can be additionally equipped with hydraulic control of the front leveller position and share depth setting.

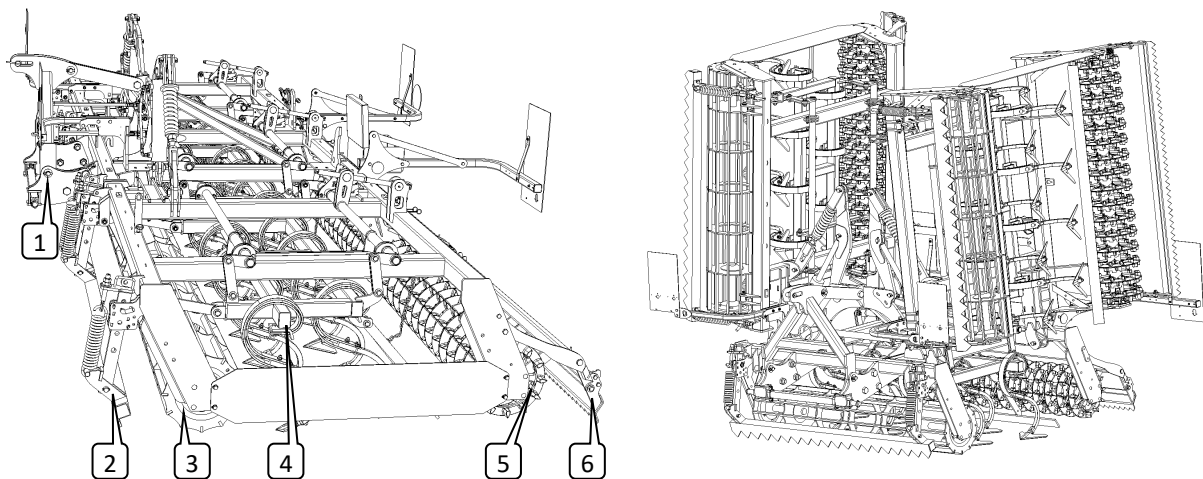
### The standard version of the mounted machine consists of the following parts:

- Suspension mechanism, Category TPS 3 for connection to the pulling vehicle
- Supporting frames of the machine
- The machine is standardly equipped with a mechanical drawbar that secures the side frames in the transport position
- The machine is standardly equipped with front and rear safety plates with oblique red-and-white hatching and with taillights and a reflective plate for vehicle marking according to EHK No. 69.

### MACHINE K400NS



### MACHINE K500NS-K600NS



### Standard Version Working parts

- 1) Suspension mechanism, Category TPS 3
- 2) Automatically spring-loaded front levellers with mechanical height adjustment
- 3) Front 12-piece slatted roller 400mm
- 4) Sweep section on formed springs with a levelling bar and mechanically controlled depth
- 5) Rear cross-kill roller with a cleaner
- 6) Rear leveller with the option of mechanical adjustment of the leveller angle

TECHNICAL PARAMETERS	K400NS	K500NS	K600NS
Working width (mm)	4000	5000	6000
Transport width (mm)	3000		
Total length of the machine (mm)	2930	3200	
Working depth (mm)	0-100		
Number of shares A/B/C	18/39/16	23/49/23	27/59/24
Working performance (ha/hour)	3-4	3-5	3,5-6
Working speed (km/hour)	10-14		
Maximum transport speed (km/hour)	20		
Maximum slope accessibility (°)	6		
Max. weight of the machine (standard version)	2670	3150	3500
Oil filling HLP 46 DIN51524-2 (l)	3,5	6	
Requirement for the engine power of the tractor (kW)*	90	120	130
REQUIREMENT FOR TRACTOR EQUIPMENT FOR AGGREGATION OF K400NS, K500NS, K600NS			
Requirement for tractor aggregation	<i>STANDARD EQUIPMENT</i> Spacing of the bottom hitch joints (as measured on the joint axes)	870 +/- 1,5 mm	
	∅ of the bottom hitch joint holes for the hitch pins of the machine	∅37,5mm	
	∅ of the top hitch joint hole for the hitch pins of the machine	∅32,5mm	
Requirement for the hydraulic system of the tractor	<i>STANDARD EQUIPMENT</i> - Side frame folding circuit	Pressure in the circuit 200bar, 2 sockets for snap coupling ISO 12.5	
	<i>ABOVE-STANDARD EQUIPMENT</i> - Front leveller control circuit	Pressure in the circuit 200bar, 2 sockets for snap coupling ISO 12.5	
	<i>ABOVE-STANDARD EQUIPMENT</i> - Share depth control circuit	Pressure in the circuit 200bar, 2 sockets for snap coupling ISO 12.5	



\* These values are only as recommended tractive equipment. The actual tractive force may substantially differ according to the processing depth, soil conditions, slope of the land, wear and tear of working parts and their adjustment.



## **MACHINE LIMIT PARAMETERS**




- <sup>(x)</sup> The machine is to be used for presowing preparation of soil after ploughing or stubble breaking with working depth from 0 mm to 100 mm for soil cultivation in agriculture. Other uses exceeding the determined purpose are considered unauthorized.
- <sup>(x)</sup> Machine operation is performed by the tractor operator.
- <sup>(x)</sup> Machine operator must not use the machine in a different way, especially:
  - <sup>(x)</sup> Transport of persons on the machine structure,
  - <sup>(x)</sup> Transport of burdens on the machine structure,
  - <sup>(x)</sup> Aggregation of the machine with another towing equipment than stated in Chapter „4.1./p.16“.

## **SAFETY STATEMENT**

	This warning sign warns about an immediate dangerous situation ending with death or severe injury.
	This warning sign warns about a dangerous situation ending with death or severe injury.
	This warning sign warns about a situation that may end with a smaller or slight injury. It also warns about dangerous actions related to the activity that could lead to an injury.

## **A. GENERAL INSTRUCTIONS FOR USE**

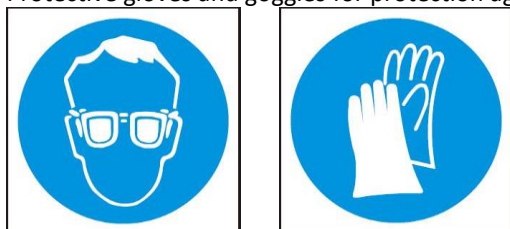
- A.1** <sup>(x)</sup> The machine is made in accordance with the latest equipment state and approved safety regulations. However, dangers of user or third person injury or machine damage or creation of other material damage may arise during use.
- A.2** <sup>(xx)</sup> Use the machine only in a technically sound condition, in accordance with its purpose, aware of possible dangers, and while adhering to the safety instructions of this operating manual! Immediately remove especially the failures that may negatively affect safety!
- A.3** <sup>(7)</sup> Machine operation may be performed by a person authorised by the operator under these conditions:
- <sup>(8)</sup> It must own a valid driver's licence of the corresponding category,
  - <sup>(9)</sup> It must be demonstrably familiarised with the safety regulations for work with the machine and must practically master the machine operation,
  - <sup>(10)</sup> The machine may not be operated by juveniles,
  - <sup>(11)</sup> It must know the meaning of the safety signs located on the machine. Their respecting is important for safe and reliable machine operation.
- A.4** <sup>(12)</sup> Maintenance and servicing repairs on the machine may only be performed by a person:
- <sup>(13)</sup> Authorised by the operator,
  - <sup>(14)</sup> Educated in the machinery field with knowledge of repairs of similar machines,
  - <sup>(15)</sup> Demonstrably familiarised with safety regulations for work with the machine,
  - <sup>(16)</sup> During a repair of a machine connected to a tractor, it must own a driver's licence of the corresponding category.
- A.5** <sup>(17)</sup> Machine operator must secure the safety of other persons when working with the machine or transporting the machine.
- A.6** <sup>(18)</sup> During machine work in the field or during transport, operator's presence on the machine structure is not required ⇒ the operator must control the machine from the tractor's cabin.

-  **A.7** <sup>(19)</sup> The operator may enter the machine structure only with the machine at rest and blocked against movement, namely only for these reasons:
- <sup>(21)</sup> Repair and maintenance of the machine,
  - <sup>(28)</sup> Adjustment of the working parts of the machine after unfolding the side frames.
-  **A.8** <sup>(22)</sup> Any changes or modifications of machine may be performed only with written consent of the manufacturer. For possible damage arisen due to ignoring this instruction, the producer bears no responsibility. The machine must be maintained equipped with prescribed accessories and equipment including safety marking. All warning and safety signs must be legible and in their places. In case of damage or loss, these signs must be immediately renewed.
- A.9** <sup>(23)</sup> The operator must have the Operating Manual with the work safety requirements available at any time when working with the machine.
-  **A.10** <sup>(24)</sup> The operator must not consume alcohol, medicines, narcotic and hallucinogenic substances that decrease his attention and coordination capabilities while using the machine. If the operator must use medicines prescribed by a physician or uses freely sold medicines, he must be informed by a physician, whether he is capable of responsible and safe operation of the machine under these circumstances.


## PROTECTIVE TOOLS

For the operation and maintenance, you need:


- Tight clothes
- Protective gloves and goggles for protection against dust and sharp parts of the machine



## **B. MACHINE TRANSPORT USING TRANSPORT MEANS**

- B.1** <sup>(1)</sup> The transport means designed for machine transport must have the load capacity minimally identical with the weight of the transported machine. The total weight of the machine is stated on the production label.
- B.2** <sup>(2)</sup> The dimensions of the transported machine including the transport means must comply with the valid regulations for road traffic (decrees, laws).
-  **B.3** <sup>(3)</sup> The transported machine must be always fastened to the transport means so that its spontaneous loosening could not happen.
- B.4** <sup>(4)</sup> The carrier is responsible for damage caused by the loosening of incorrectly or insufficiently fastened machine to the transport means.
- B.5** <sup>(xx)</sup> The carrier shall observe the instructions of the responsible employees of Farmet in charge of loading concerning proper binding and securing of the machine on the transportation vehicle, particularly with regard to the potential damage of the machine to be transported.

## C. MACHINE HANDLING USING LIFTING EQUIPMENT

- C.1** <sup>(1)</sup> The lifting equipment and tying means designed for handling of the machine must have their load capacity at least identical with the weight of the handled machine.
- C.2** <sup>(2)</sup> Machine fastening for handling may only be performed in places designed for that and marked with self-adhesive labels showing the "chain" symbol. 
- C.3** <sup>(3)</sup> After fastening (suspending) at designated points, it is forbidden to move in the space of possible reach of the handled machine.
- C.4** Table with approximate weights of the parts according to the loading alternative

SET	K400NS	K500NS	K600NS
TRACK CULTIVATORS* (kg)	250	150	150
SUPPORTING FRAME (kg)	800	-	-
CENTRAL FRAME (kg)	-	1300	1300
RIGHT SIDE FRAME (kg)	1100	900	1100
LEFT SIDE FRAME (kg)	1100	900	1100
MACHINE (kg)	2670	3150	3500

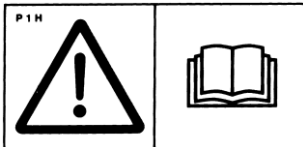

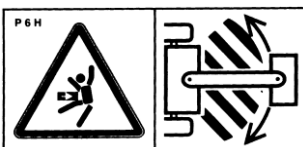
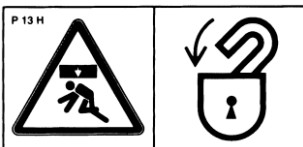
\*- Not included the standard equipment of the machine

## D. WORK SAFETY LABELS

Warning safety labels serve for operator protection.

### THE FOLLOWING APPLIES GENERALLY:

- D.1** Strictly observe the warning safety labels.
- D.2** All safety instructions also apply to other users.
- D.3** The operator shall ensure completeness and readability of labels on the machine, i.e. the operator shall replace any damaged labels with new ones.
- D.4** The appearance and exact meaning of the warning safety labels on the machine are specified in the following table.

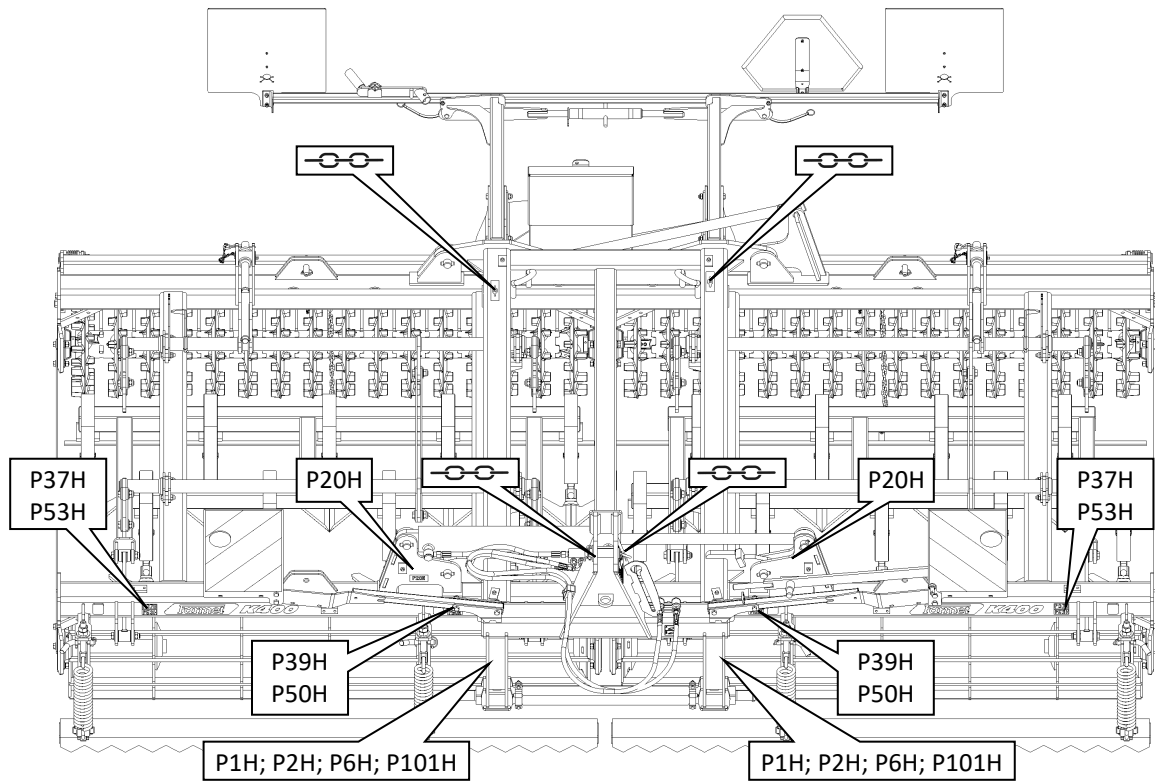
WARNING SAFETY LABELS	TEXT TO THE LABELS	POSITION ON THE MACHINE
	Before handling the machine, carefully read the operating manual. Observe the instructions and safety regulations for machine operation during use.	<b>P 1 H</b>
	When connecting or disconnecting, do not step between the tractor and the machine, also do not enter this space, if the tractor and the machine are not at rest and the engine is not turned off.	<b>P 2 H</b>
	Stay outside the reach of the tractor - agricultural machine set, if the tractor engine is in operation.	<b>P 6 H</b>
	Secure the side frames against unfolding and the axle against sudden fall prior to the transportation of the machine.	<b>P 13 H</b>



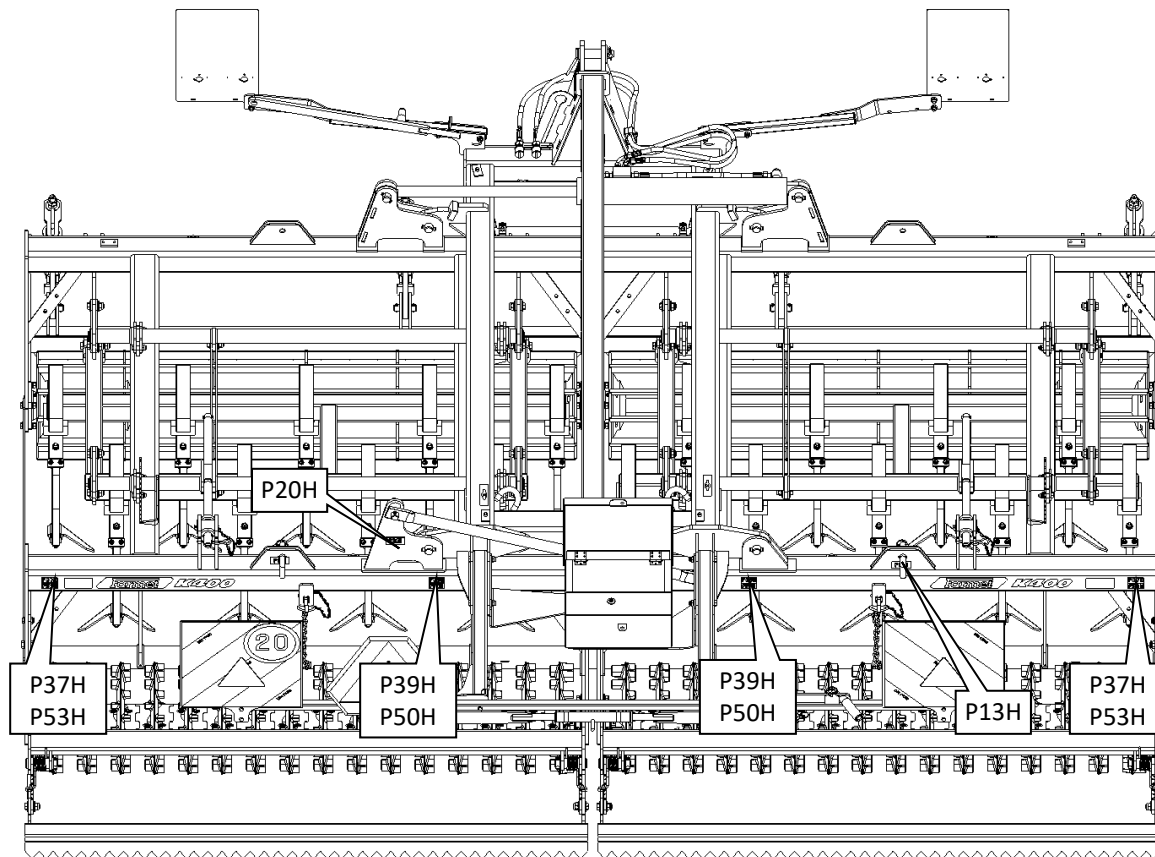
	<p>When unfolding the side frames into the transport position, do not reach into the area of contact with the central frame.</p>	<p><b>P 20 H</b></p>
	<p>Driving the machine and transportation on its construction is strictly forbidden.</p>	<p><b>P 37 H</b></p>
	<p>When working and transporting the machine, maintain safe distance from the electric appliances.</p>	<p><b>P 39 H</b></p>
	<p>Stay outside the reach of the unsecured side frames of the machine.</p>	<p><b>P 50 H</b></p>
	<p>Do not approach the rotary parts of the machine unless they are standing still, i.e. they are not rotating.</p>	<p><b>P 53 H</b></p>
	<p>It is strictly folding and unfolding the side frames on slopes or inclined surfaces.</p>	<p><b>P 100 H</b></p>
	<p>The shown positions of the handle and the function of the hydraulic ball valve located on the piston-rod.</p>	<p><b>P 101 H</b></p>
	<p>Showing the spot where it is possible to hook up the machine to a crane.</p>	

D.5 The positions of the warning safety labels on the machine are shown in the following pictures..

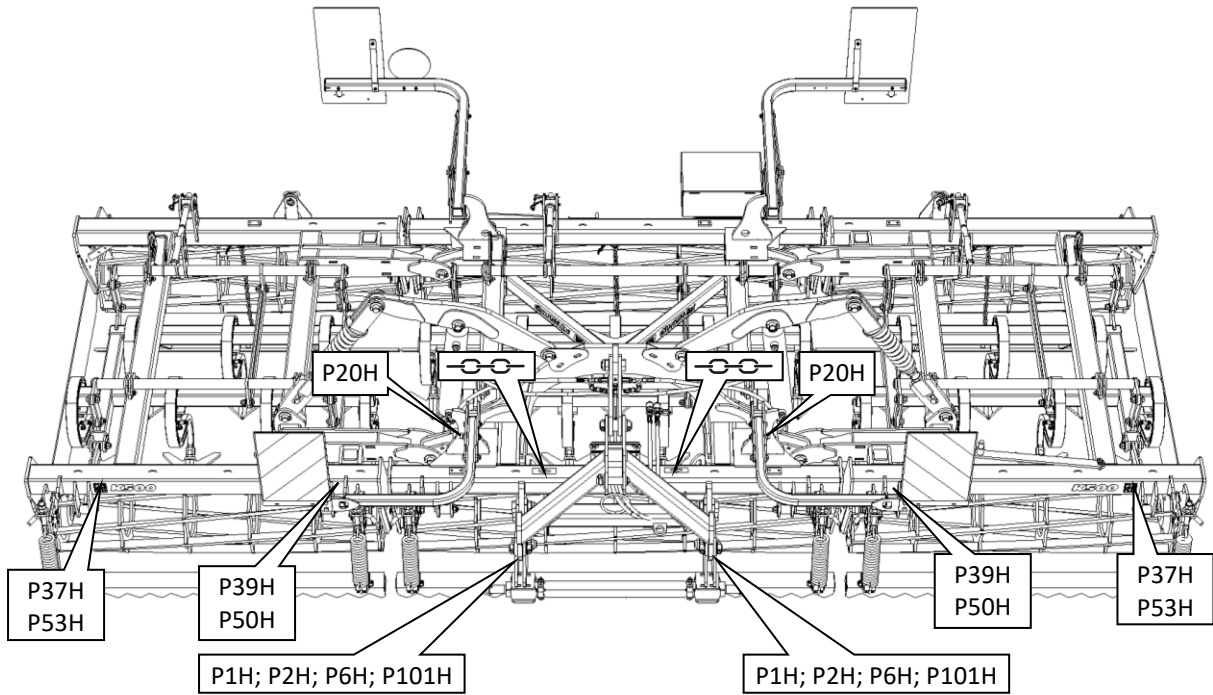
K400NS - Front view



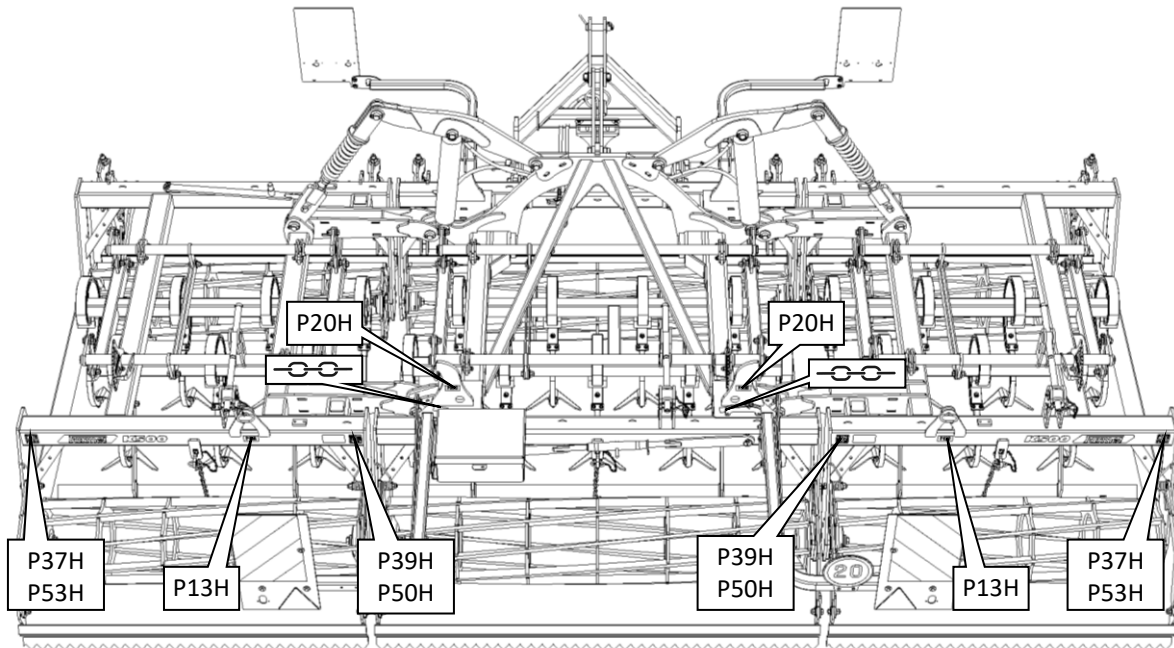
K400NS - Rear view



K500NS, K600NS - Front view



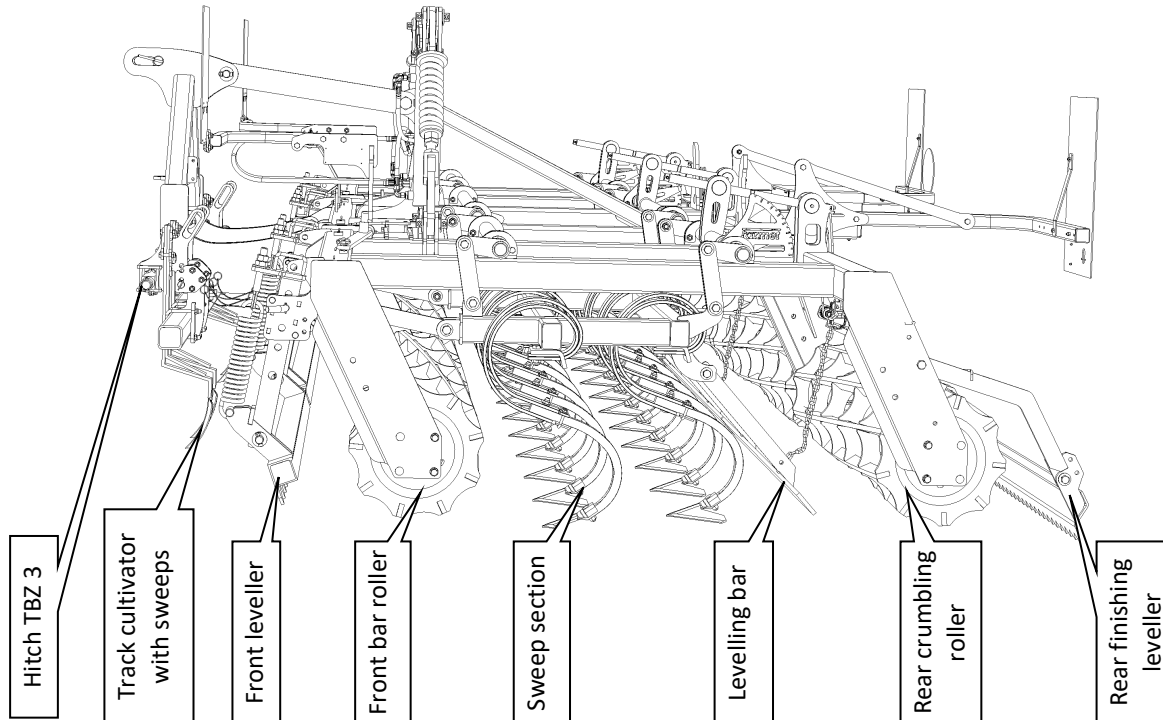
K500NS, K600NS - Rear view



## 1. DESCRIPTION

Kompaktomat is structurally designed as a mounted folding machine aggregated behind a tractor. The machine consists of supporting frames where the individual working parts are installed. The modular design of the machine allows selecting various types of working parts so that the machine meets the high demands of any soil conditions.

The basic version of the machine (see p. 4) combines six soil-processing operations in a single pass.



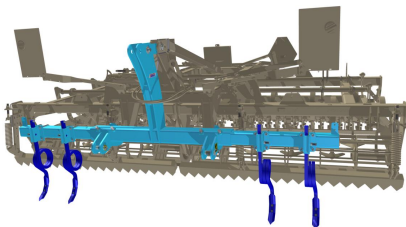
The control for folding the side frames into the transport or working position is designed as a single independent hydraulic circuit controlled by the driver in the tractor cabin.

All Kompaktomat machines meet the regulations for road transportation.

The design of the Kompaktomat machine allows using a whole range of additional equipment to increase productivity and efficiency, such as the automatic front leveller position control system using an independent hydraulic circuit controlled by the driver in the tractor cabin, or the automatic share depth control using an independent hydraulic circuit controlled by the driver in the tractor cabin. Furthermore, mounted Kompaktomat machines can be equipped with the optional track cultivators with chisel ploughshares.

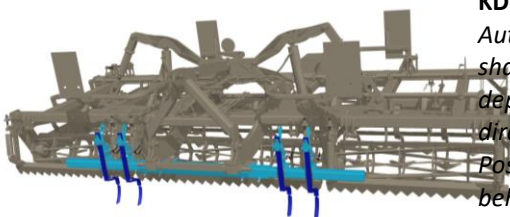
## 2. WORKING PARTS

**TRACK CULTIVATORS WITH CHISEL SHARE** – Attention! Not included in the standard equipment of the machine



### KD - K400NS

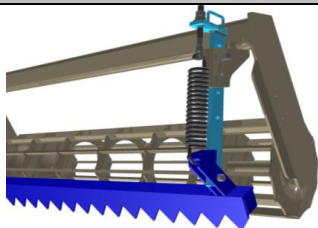
Automatically released tractor track cultivator with a chisel share. Suitable for all types of soil. Possibility of mechanical depth setting up to 80mm. Possibility of setting the position directly behind the tractor up to the tractor width of 4000mm. Possibility to change the number of cultivators from 1 to 4 pieces behind a wheel. Designed as an inserted piece between the tractor and Kompaktomat. Attention! The application of track cultivators moves the center of gravity further away from the tractor!



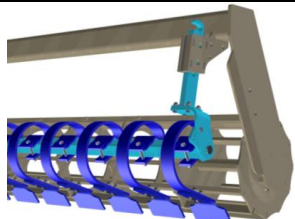
### KD – K500NS; K600NS Track Cultivator with Chisel Share

Automatically released tractor track cultivator with a chisel share. Suitable for all types of soil. Possibility of mechanical depth setting up to 80mm. Possibility of setting the position directly behind the tractor up to the tractor width of 4000mm. Possibility to change the number of cultivators from 1 to 4 pieces behind a wheel. Attention! The application of track cultivators moves the center of gravity further away from the tractor!

## FRONT LEVELLERS

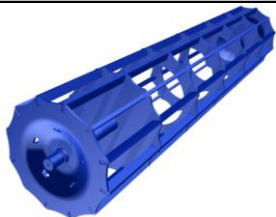


**MS – Front Fixed Serrated Levelling Bar**  
Included in the equipment of the STANDARD MACHINE VERSION.  
Automatically released levelling bar with a serrated section.  
Massive construction for precise levelling of coarse furrows.

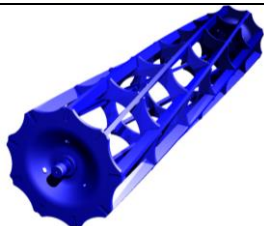


**CB – Front Levelling Bar with Flexible Segments**  
Automatically released levelling bar with separate flexible segments. Better clod crumbling.

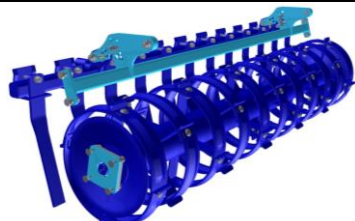
## FRONT WORKING ROLLERS



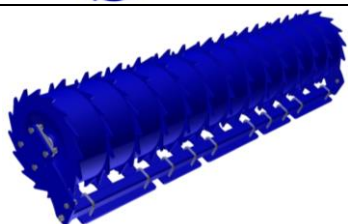
**LR – Bar Roller - Ø40 cm - 60 kg/m**  
Included in the equipment of the STANDARD MACHINE VERSION, as a front roller.  
High-quality clod crumbling. Not suitable for humid conditions.



**LS – Spiral Bar Roller - Ø40 cm - 60 kg/m**  
Quality clod crumbling. Suitable for humid conditions.

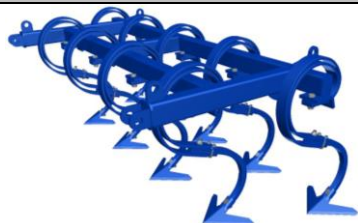


**RV – Ring Roller Ø40 cm - 115 kg/m**  
Quality work in all types of soil, good depth guiding, suitable for more humid soils.



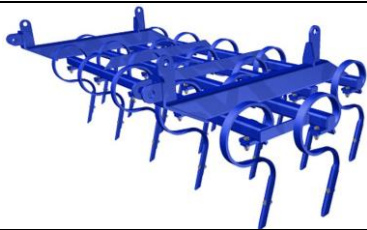
**SV – Segmented Roller Ø40 cm - 115 kg/m**  
Excellent work in medium and heavy hard soils, good clod crumbling, good depth guiding. Not suitable for heavily flinty and silt soils.

## SHARE SECTIONS



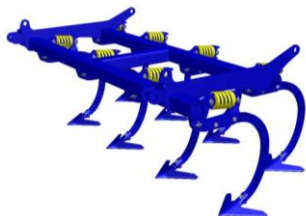
**A – Section**  
Included in the equipment of the STANDARD MACHINE VERSION.  
The share section is equipped with sweeps with the width of 25 cm in two rows. Each sweep is protected by a leaf spring. This section is suitable for lighter soil conditions without plant residues. There is a leveller behind the sweeps.





**B – Section**

The share section is equipped with slim chisels with the width of 7 cm in four rows. The section is suitable for processing soil in spring when it is not suitable to pull wet soil out to the surface, or for heavy soils. There is **no** leveller behind the chisels.



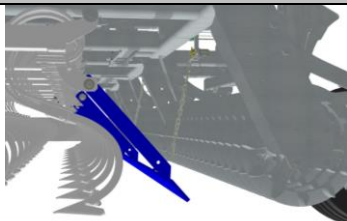
**C – Section**

A universal share section is equipped with sweeps with the width of 25 cm in two rows. The sweeps are mounted to frames with geometry improving the permeability of plant residues. Therefore, this section is suitable for land with a higher occurrence of crushed plant residues as well as for heavy soils. There is a leveller behind the sweeps.

	A	B	C
Number of rows of shares (pieces) / Row spacing (mm)	2 / 400	4 / 240	2 / 490
Leveller behind shares	●●●●	●●●●	●●●●
All-area processing	●●●●	●●●○	●●●●
Suitable for light soils	●●●●	●●●●	●●●●
Suitable for medium soils	●●●○	●●●○	●●●●
Suitable for heavy soils	●●●○	●●●○	●●●●
Suitable for rocky soils	●●●○	●●●○	●●●●
Suitable for wet soils	●●○●	●●●●	●●○●
Resistance to clogging	●●○●	●●○●	●●○●

● – MAX / ○ – MIN

**LEVELLING BARS BEHIND SHARES**

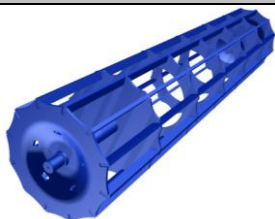


**LEVELLING BAR BEHIND SHARES**

**Included in the equipment of the STANDARD MACHINE VERSION.**

The levelling bar is applied behind the share sections with sweeps and chisels, i.e. A-section, B-section or C-section. The bar is used for levelling the loosened soil in front of the rear roller.

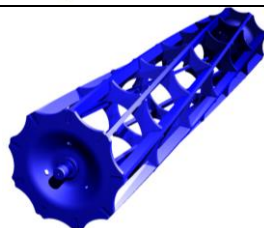
**REAR WORKING ROLLERS**



**LR – Bar Roller - Ø40 cm - 60 kg/m**

**Included in the equipment of the STANDARD MACHINE VERSION, as a front roller.**

High-quality clod crumbling. Not suitable for humid conditions.



**LS – Spiral Bar Roller - Ø40 cm - 60 kg/m**

Quality clod crumbling. Suitable for humid conditions.



**CR – Cross-kill Roller - Ø40 cm - 170 kg/m**

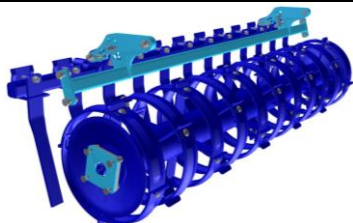
**Included in the equipment of the STANDARD MACHINE VERSION.**

Excellent work in light, medium and heavy soils, quality compaction and clod crumbling.

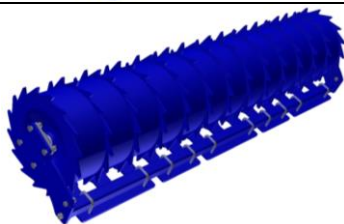




**DCR – Double-row Cross-kill Roller - Ø40 cm / Ø40 cm - 175 kg/m**  
 Excellent work in light, medium and heavy soils, quality compaction and clod crumbling.  
 Attention! The application of track cultivators moves the center of gravity further away from the tractor!



**RV – Ring Roller Ø40 cm - 115 kg/m**  
 Quality work in all types of soil, good depth guiding, suitable for more humid soils.

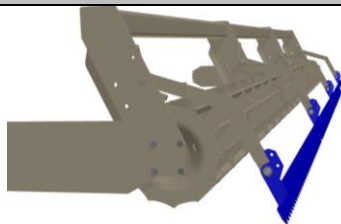


**SV – Segmented Roller Ø40 cm - 115 kg/m**  
 Excellent work in medium and heavy hard soils, good clod crumbling, good depth guiding. Not suitable for heavily flinty and silt soils.

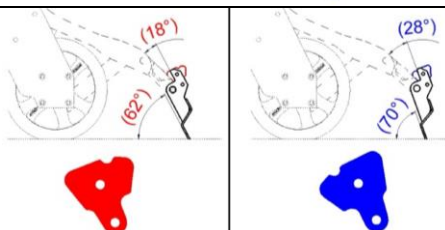
	LR	LS	CR	DCR	RV	SV
<b>Crumbling</b>	●●●○	●●●○	●●●●	●●●●	●●○○	●●○○
<b>Compacting</b>	●●●○	●●●○	●●●●	●●●●	●●●●	●●●○
<b>Depth guiding</b>	●●●●	●●●●	●○○○	●●○○	●●●●	●●●●
<b>Resistance to clogging</b>	●●○○	●●○○	●●○○	●●●●	●●●●	●●○○
<b>Suitable for rocky soils</b>	●●●○	●●●○	●●○○	●○○○	●●○○	●●○○
<b>Suitable for wet soils</b>	●○○○	●●○○	●●○○	●●●○	●●●●	●●○○
<b>Heavy soils</b>	●●○○	●●○○	●●○○	●●○○	●●○○	●●○○
<b>Medium soils</b>	●●○○	●●○○	●●●●	●●●●	●●○○	●●○○
<b>Light soils</b>	●●●●	●●●●	●●●●	●●●●	●●○○	●●○○

● – MAX / ○ - MIN

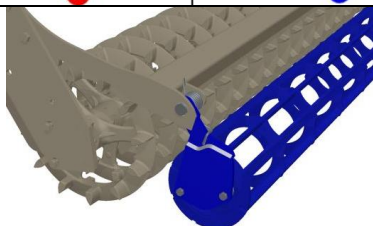
## FINISHING OPERATIONS



**REAR FINISHING LEVELLING BAR**  
 Included in the equipment of the STANDARD MACHINE VERSION.  
 The levelling bar behind the rear roller levels and evenly spreads the loosened soil.



**Levelling Bar Stops**  
 Included in the equipment of the STANDARD MACHINE VERSION.  
 -Pivoting stops allowing a more aggressive setting of the rear levelling bar.



**REAR FINISHING ROLLER (diameter 220mm)**  
 -Active crumbling of remaining clods after the rear roller. May be used after all types of rear rollers.

### 3. MACHINE ASSEMBLY AT THE CUSTOMER



- Always assemble the machine on a flat and reinforced surface.
- Use the Spare Parts Catalogue with 3D views as reference for assembly.
- The operator must perform the assembly according to the instructions of the producer, best in cooperation with the expert servicing technician determined by the producer.
- The operator must secure a functional test of all assembled parts after the completion of the machine assembly.
- The operator must secure that the handling of the machine using lifting equipment during its assembly is in accordance with chapter „C“/p.8.

### 4. COMMISSIONING



- Before taking over the machine, test and check, whether damage occurred during transport and whether all parts contained in the bill of delivery were supplied.
- Before commissioning the machine, carefully read this operating manual, especially Chapters **A-D** page 6-11. Before the first use of the machine, familiarise yourselves with its controls and overall function.
- During work with the machine, observe not only the instructions of this operating manual but also generally valid regulations of work safety, health protection, fire and transport safety, and environmental protection.
- The operator must check the machine before every use (commissioning) from the standpoint of completeness, work safety, work hygiene, fire safety, transport safety, and environmental protection.
- **A MACHINE SHOWING SIGNS OF DAMAGE MUST NOT BE COMMISSIONED!!**
- Aggregation of the machine with the tractor is to be performed on a flat and hardened surface.
- When working on slopes, observe the lowest slope grade of the set **TRACTOR - MACHINE**.
- Before starting the tractor motor, check whether no person or animal is in the working space of the set and push the warning sound signal.
- The operator is responsible for the safety and all damage caused by the operation of the tractor and the connected machine.
- The operator is obliged to adhere to the technical and safety regulations of the machine determined by the producer when working.
- The operator must raise the machine when turning at the plough turning end, i.e. the working parts must not be in the ground.
- The operator is obliged to observe the prescribed working depths and speeds stated in the manual in table page 5 when working with the machine.
- The operator is obliged to lower the machine to the ground and secure the set against movement before leaving the tractor cabin.
- **When connecting, no persons may stay in the space between the tractor and the machine. Exercise utmost caution!**



#### 4.1 AGREGATION TO A TRACTOR

- The machine can be connected only to a tractor, whose curb weight is identical or higher than the overall weight of the connected machine.
- The machine operator must observe all generally valid regulations of work safety, health protection, fire safety, and environmental protection.
- The operator may connect the machine exclusively to a tractor that is equipped with a rear three-point hitch and a functional undamaged hydraulic system.
- **The controlling distributors in the tractor must be secured or blocked when the machine is in the transport position or when the machine is not in use to prevent accidental or third-party (children, passengers) caused movement of the hydraulics.**
- Aggregate the machine with the tractor using type and dimensionally consistent components corresponding to the output requirements.









## 4.2 HYDRAULIC OF THE MACHINE

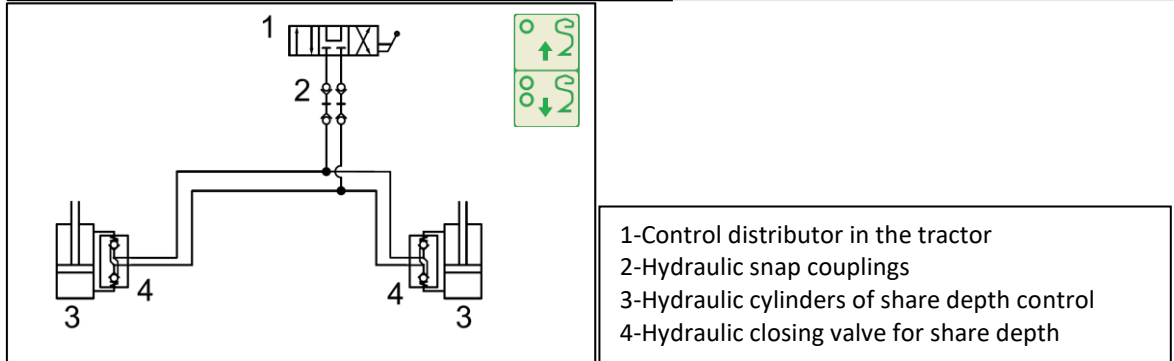
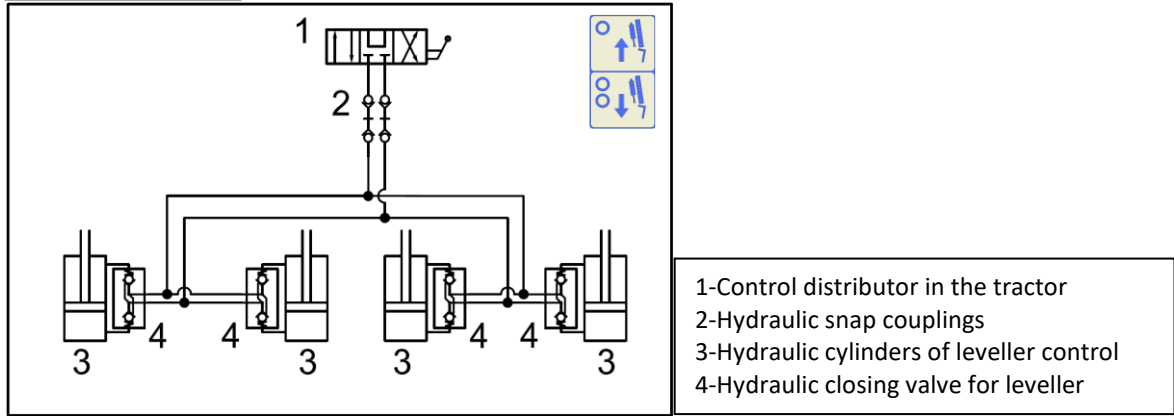
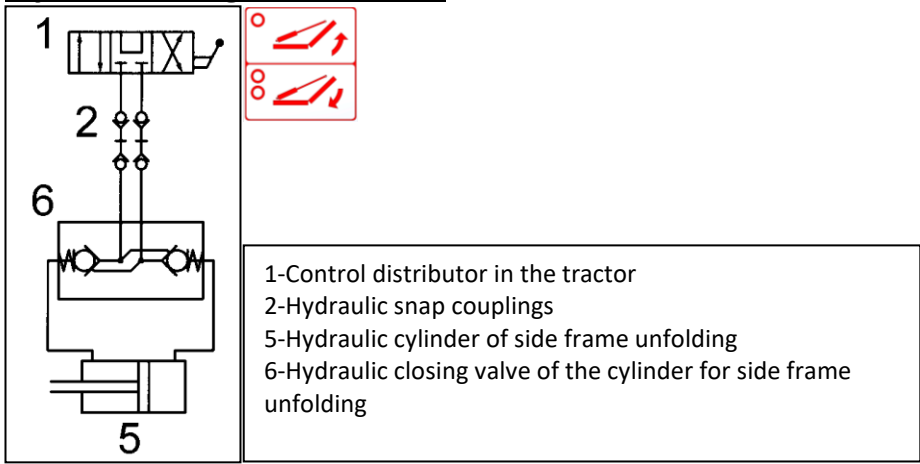


Parts of the hydraulic system of the machine, which are under pressure, are forbidden to disassemble. Hydraulic oil that penetrates the skin under high pressure causes severe injuries. In case of injury, seek a physician immediately.

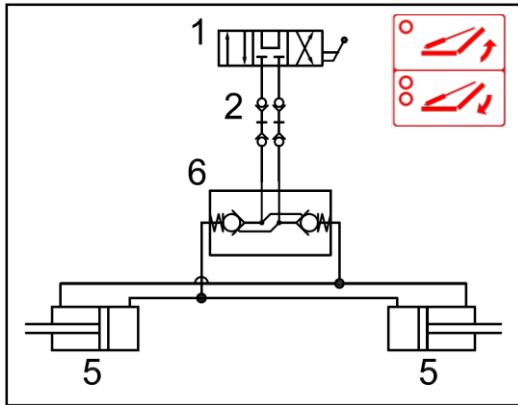
- Connect the hydraulics only when the hydraulic circuits of the machine and the tractor (aggregate) are in a pressure-less condition.
- The hydraulic system is under high pressure. Regularly check for leaks and immediately remove obvious damage of all lines, hoses, and pipe unions.
- When seeking and removing leaks, use only the suitable tools.
- For connecting the hydraulic system of the machine to the tractor, use the plug (on the machine) and the socket (on the tractor) of the quick-couplers of the same type.
- For simplification, the hydraulic circuits are marked by different colours

	<b>STANDARD EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR SIDE FRAME FOLDING</p> <p>- <b>ONE RED RING</b></p> <p>Pressurizing this branch of the circuit folds side frames into the transport position.</p>
	<b>STANDARD EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR SIDE FRAME FOLDING</p> <p>- <b>TWO RED RINGS</b></p> <p>Pressurizing this branch of the circuit unfolds side frames into the working position.</p>
	<b>OPTIONAL EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR FRONT LEVELLER POSITION CONTROL</p> <p>- <b>ONE BLUE RING</b></p> <p>Pressurizing this branch of the circuit brings the leveller up from the surface.</p>
	<b>OPTIONAL EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR FRONT LEVELLER POSITION CONTROL</p> <p>- <b>TWO BLUE RINGS</b></p> <p>Pressurizing this branch of the circuit recesses the leveller to the surface.</p>
	<b>OPTIONAL EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR SHARE WORKING DEPTH CONTROL</p> <p>- <b>ONE GREEN RING</b></p> <p>Pressurizing this branch of the circuit brings shares out of the processed profile.</p>
	<b>OPTIONAL EQUIPMENT OF THE MACHINE</b>	<p>HYDRAULIC CIRCUIT FOR SHARE WORKING DEPTH CONTROL</p> <p>- <b>TWO GREEN RINGS</b></p> <p>Pressurizing this branch of the circuit recesses shares into the processed profile.</p>

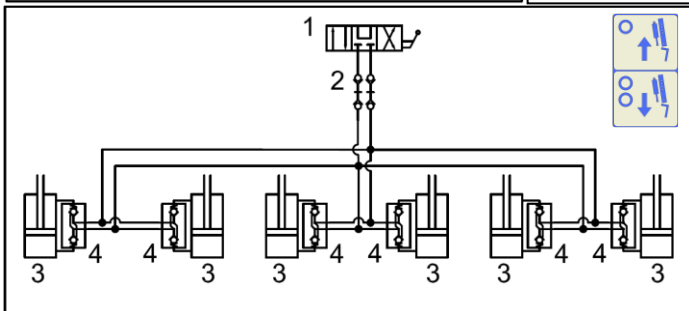
### Hydraulic diagram K400NS



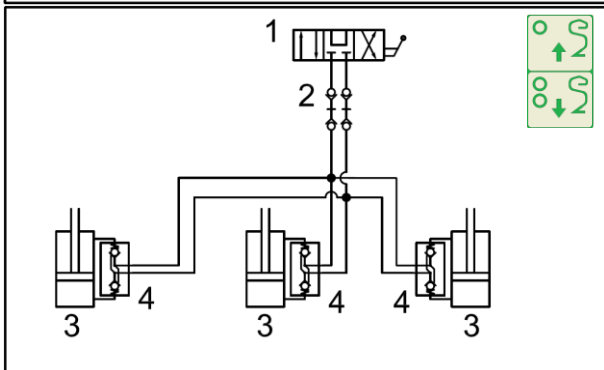
### Hydraulic diagram K500NS, K600NS



1-Control distributor in the tractor  
 2-Hydraulic snap couplings  
 5-Hydraulic cylinders of side frame unfolding  
 6-Hydraulic closing valve of cylinders for side frame unfolding



1-Control distributor in the tractor  
 2-Hydraulic snap couplings  
 3-Hydraulic cylinders of leveller control  
 4-Hydraulic closing valve for leveller



1-Control distributor in the tractor  
 2-Hydraulic snap couplings  
 3-Hydraulic cylinders of share depth control  
 4-Hydraulic closing valve for share depth

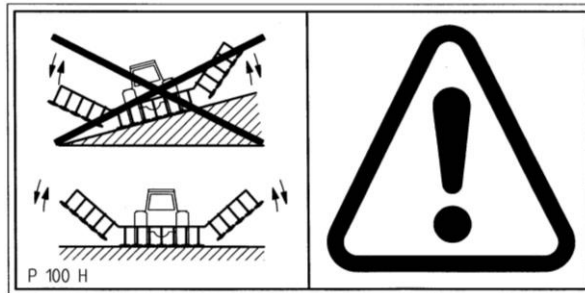
### 4.3 FOLDING AND UNFOLDING THE MACHINE



When executing any of the hydraulic movements, slow down the moving parts of the machine before position stop by choking a relevant valve on the tractor control!



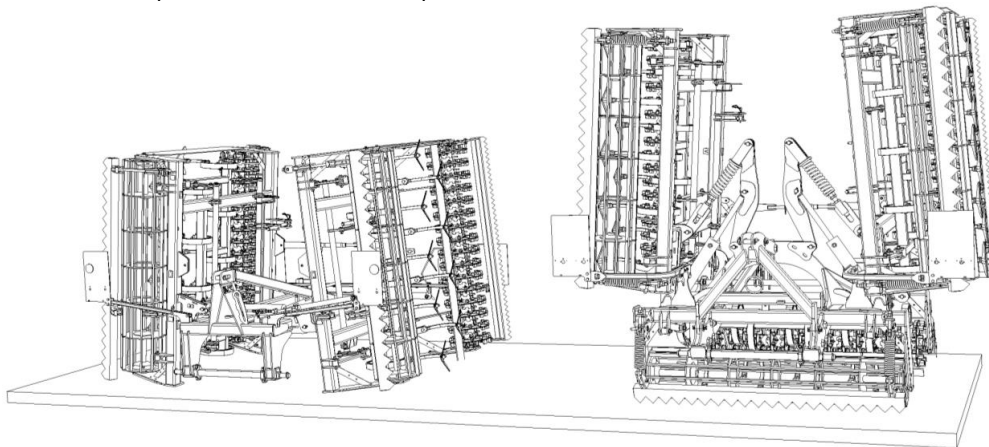
- The hydraulics for the folding and unfolding must be connected to the double-action hydraulic circuit.
- The operator must ensure that there are no people or animals within the reach of the side frames during their unfolding or folding (i.e. in the place of their position stop) and that no one puts their fingers or other body parts into the area of the joints.
- Execute unfolding or folding on flat and solid surfaces or crosswise to a slope.



- The machine may only be folded or unfolded when it is not resting on the surface.
- Remove any soil stuck on the folding places as it may disturb the function and cause damage to the mechanics.
- During folding or unfolding, check the side frames and have them continuously fold into the end position to the stoppers.

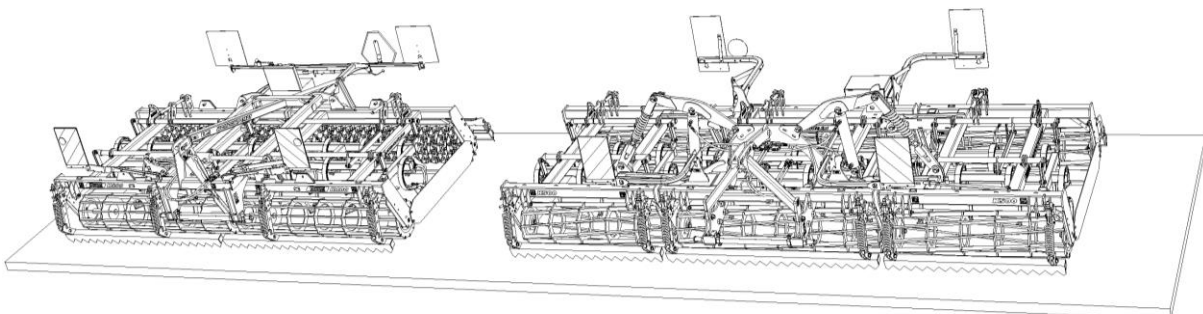
### FOLDED SIDE FRAMES OF THE MACHINE

- Leave the machine in this position at the time of standstill
- Transport the machine in this position on roads



### UNFOLDED SIDE FRAMES OF THE MACHINE

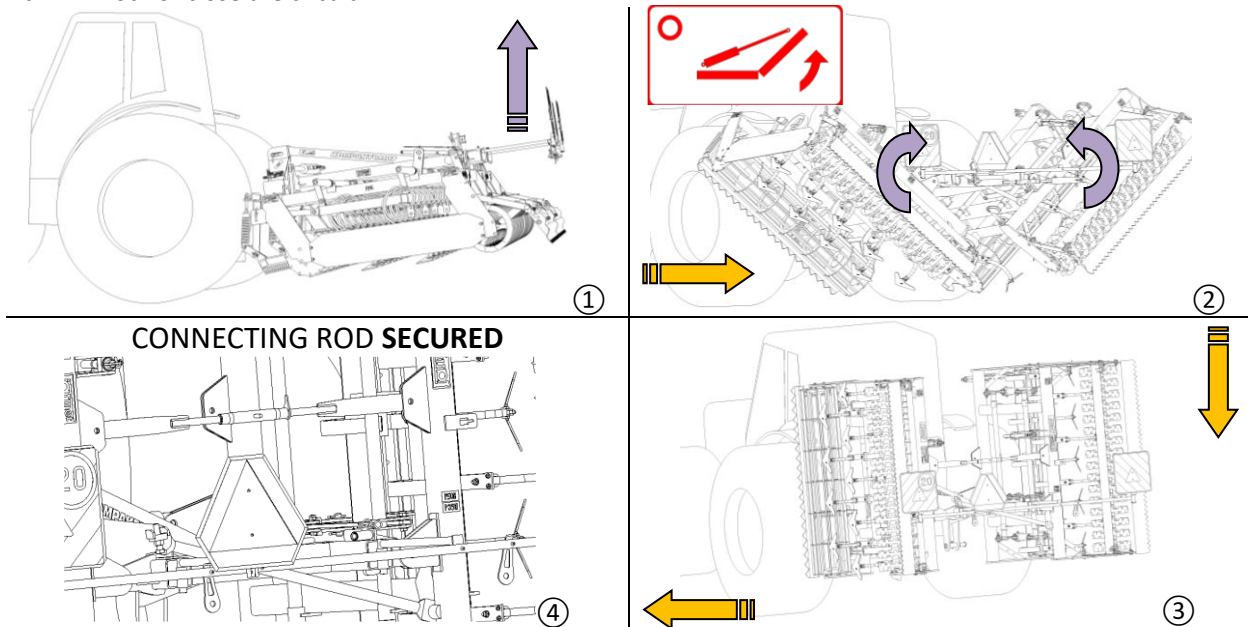
- Leave the machine in this position at the time of standstill if you have enough space.
- Use the machine in this position for work in the field





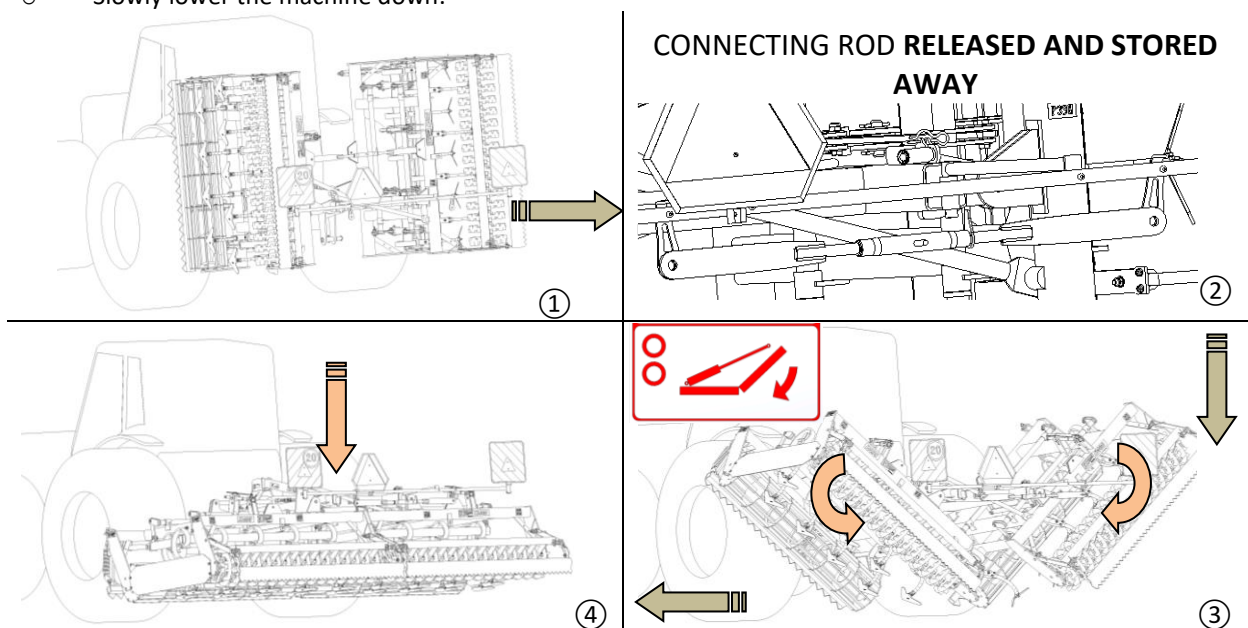
### 4.3.1 FOLDING THE MACHINE INTO THE TRANSPORT POSITION

- Clean the machine from impurities.
- ① Lift the machine from the surface using the arms of the tractor three-point suspension.
- ② Pressurizing the hydraulic circuit marked with one red ring continuously folds the side frames into the transport position ③.
- ④ Secure the side frames from unfolding using the connecting rod.
- Block or close the circuit.



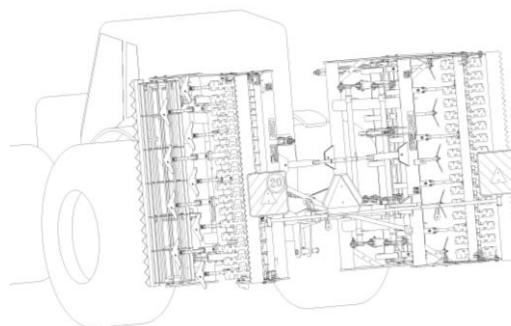
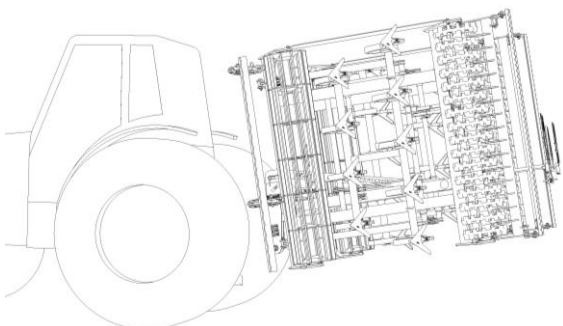
### 4.3.2 UNFOLDING THE MACHINE INTO THE WORKING POSITION

- The machine must be aggregated to the rear tractor hitch and must be lifted above the surface.
- ① Before starting to unfold the machine, you must release the mechanical connecting rod ②. Failure to do so will damage the machine.
- ③ Unfold the side frames continuously into the working position by pressurizing the hydraulic circuit marked with two red rings.
- Block or close the circuits.
- Slowly lower the machine down.

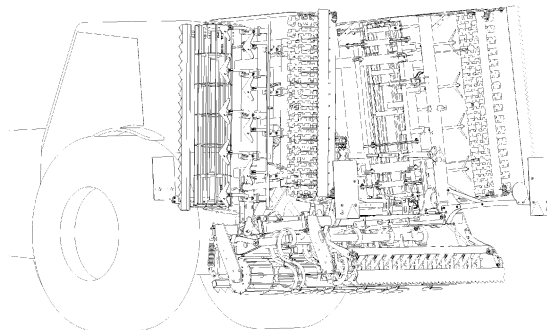
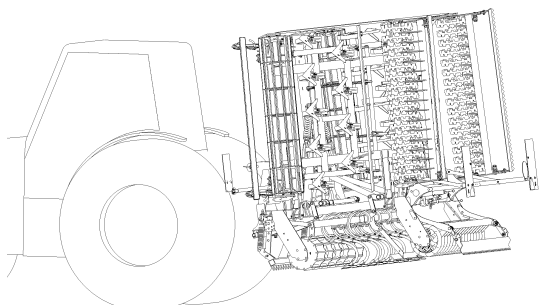


## 5. MACHINE TRANSPORT ON ROADS

- According to Chapter 4.3.1, the machine must be put into the transport position, i.e. the machine is folded, the side frames are secured against unfolding and the ball valves of the transport axle are secured.
- The machines are equipped with reflective plates in the front and in the rear that outline the exterior profile. The operator shall keep the plates clean and free from any damage.
- The operator must clean the machine of any dirt to prevent the contamination of the roads before setting off.
- The operator must prepare the machine for the transportation so that it meets the valid regulations, directives and ordinances for road transportation.
- The operator is obliged to pay increased attention during transport on roads, due to the transport dimensions of the machine.
- The operator must observe the valid regulations for transport on roads (laws, decrees) after connecting the machine to the tractor, for reason of a change of the axle load. The driving properties of the set also change depending on the terrain nature, adapt the manner of driving to these conditions.
- The operator is obliged to present the machine certificate of roadworthiness as needed, according to the valid regulations for road traffic (decree, law) (only in the Czech Republic).
- The operator is obliged to secure sufficient outlook during reversing from his position of the tractor driver. In case of insufficient outlook, the operator is obliged to call a competent and informed person.
- If the machine is aggregated behind the tractor with the rear arms of the three-point suspension, the operator must secure the three-point hitch rear arms of the tractor in the transport position when transporting the machine on roads, i.e. prevent sudden drop of the arms by the hydraulic shoulder control lever. At the same time, the arms of the rear TPS of the tractor must be secured against side swinging.
- During machine transport on roads, the operator must observe the valid laws and decrees that deal with this topic and which specify the relationships of the tractor axle load depending on transport speed.
- **IT IS FORBIDDEN TO TRANSPORT THE MACHINE ON ROADS WHEN VISIBILITY DISTANCE IS REDUCED!!**
- Transport position for the machine K400NS



- Transport position for the machine K500NS, K600NS



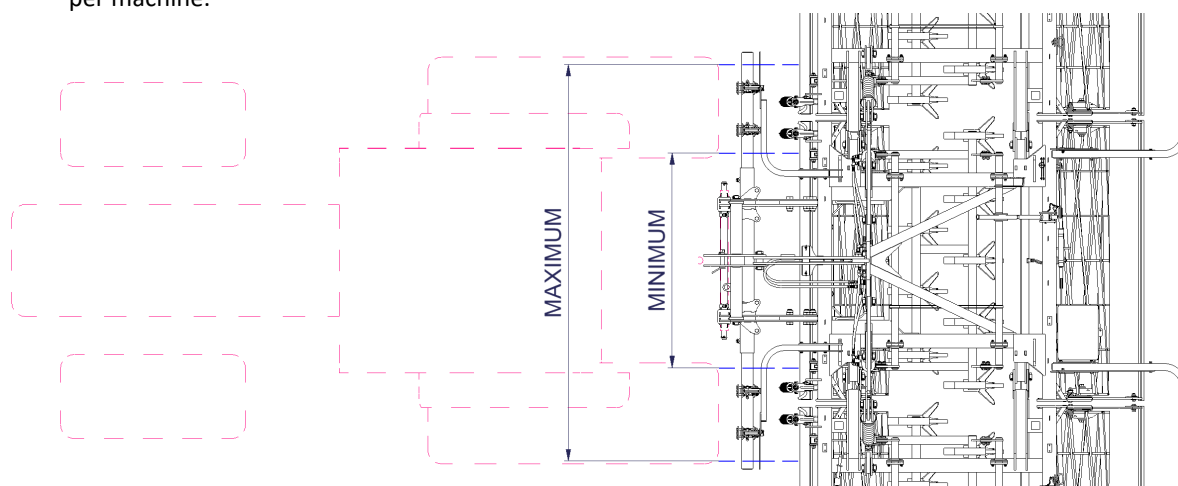
## 6. ADJUSTING THE WORKING PARTS OF THE MACHINE

- The position of the following individual working parts on the machine can be adjusted
  - Position and depth of the track cultivators, **Attention! The cultivators are not included in the standard equipment of the machine!**
  - Height and down pressure of the front leveller
  - Depth of the shares
  - Position of the leveller behind the shares (only for sweeps)
  - Angle of the rear finishing levelling bar.
- The control of the front leveller position and the share depth setting can be either mechanical, or automatic from the driver's position.
- It is possible to adjust the pre-loading of the folding bar springs in K500NS-K600NS machines.

### 6.1 ADJUSTING THE POSITION AND DEPTH OF THE TRACK

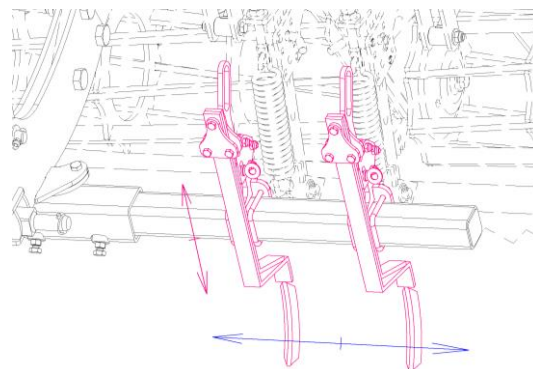
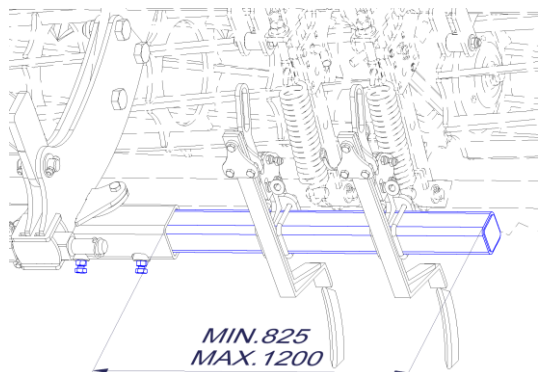
#### CULTIVATORS

- Correct position of the track cultivator affects the resulting quality of processing.
- When adjusting the track cultivator position, always observe generally valid labour safety regulations.
- The tractor track cultivator position can be adjusted either by height or length.
- The track cultivators are attached to launching beams that can be launched to the width of 3900mm.
- The track cultivators may be moved along the beam so that it cultivates the compacted tractor wheel tracks.
- The number of track cultivators can be selected from 1 to 4 pieces behind the wheel, i.e. 2 to 8 pieces per machine.



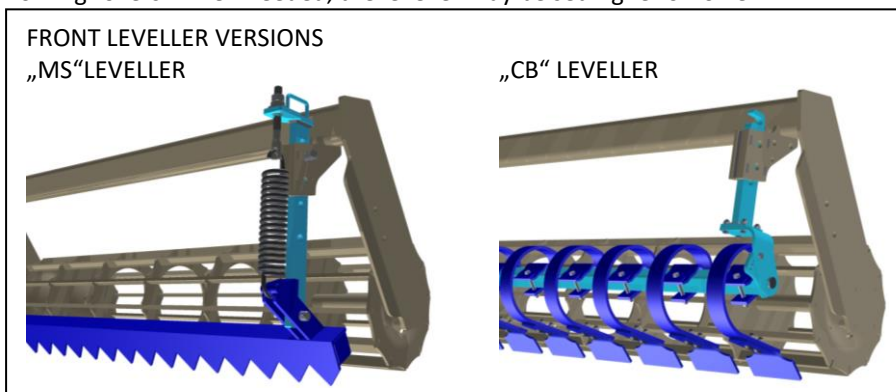
	K400NS, K500NS, K600NS
Minimum cultivator setting width (mm)	1500
Maximum cultivator setting width (mm)	3700

- Lengthwise setting of the cultivators is done by moving the cultivators along the beam to the position behind the tractor wheels so that they cultivate the compacted tractor track. Lengthwise setting of the cultivators can also be used for tractors with dual assembly up to the width of 4m. In this case, we recommend adding another cultivator, or cultivators, to each side.
- Setting the depth of the cultivator is performed by removing the pin and moving the cultivator in the holder. Before setting the depth of the cultivators, set the machine in the position when the cultivators are not loaded.



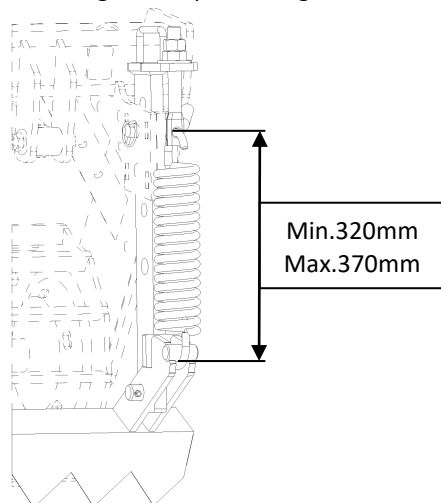
## 6.2 ADJUSTING THE SPRING-MOUNTED FRONT LEVELLER

- Correct position of the front leveller affects the resulting quality of processing.
- When adjusting the position of the levellers, always observe generally valid labour safety regulations.
- Perform the adjustment of front levellers when the machine is unfolded in the working position and standing on the working sections at the same time.
- The height of the front leveller is adjusted in relation to the size of clods and curvature of the field so that the leveller is about 3 to 5 cm above the level of the working rollers when the machine is lowered to the working rollers. When needed, the leveller may be set higher or lower.

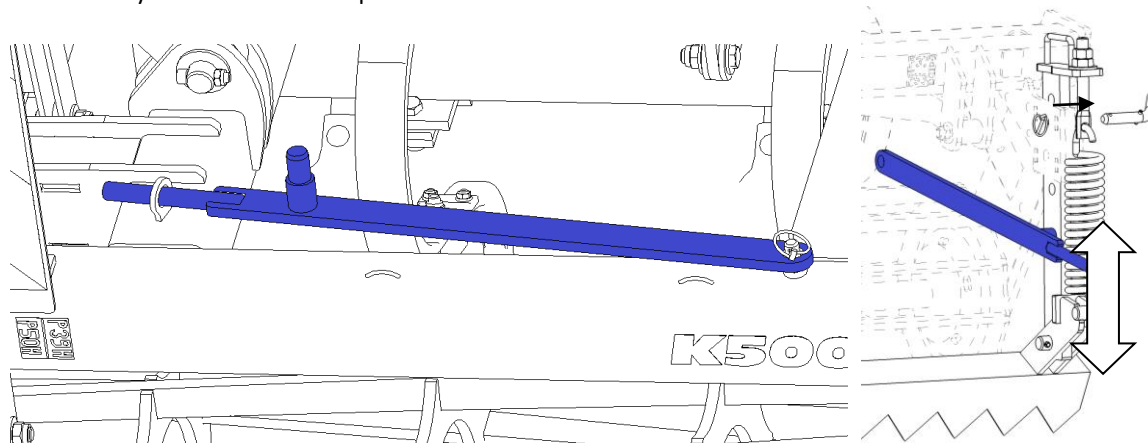


### MS – Front Fixed Serrated Levelling Bar

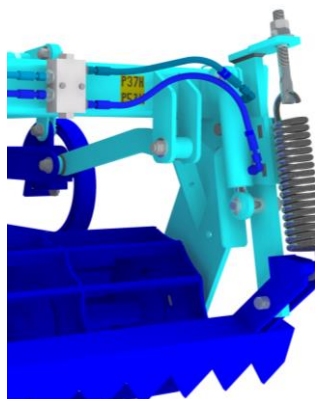
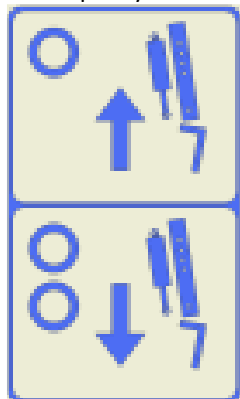
- The automatic release of the leveller is protected by a draw spring. The spring is factory-set to the length of 340mm; however, it is possible to change the preloading as needed. The spring preloading is selected according to the character of the field (size of clods in the field). The bigger the clods are, the higher the preloading needs to be.



- Standardly, the levelling bar is adjusted mechanically and manually. The machine is equipped with an auxiliary bar for easier manipulation.

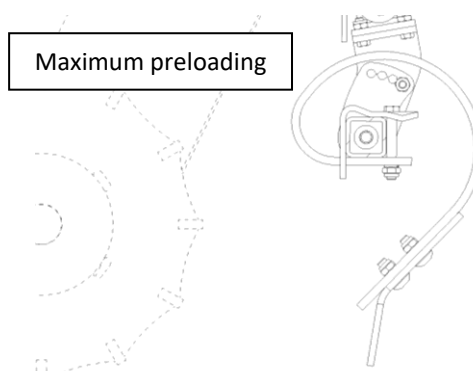
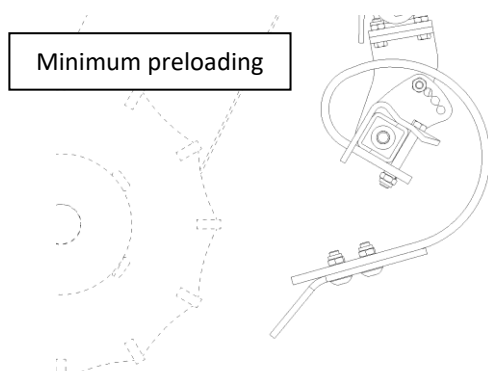


- Optionally, it is possible to adjust the levelling bar using an independent hydraulic circuit from the driver's position. Marking of the independent hydraulic circuit (p. 17), required parameters for the hydraulic circuit (p. 5).
- The distribution of the hydraulic circuit includes elements providing even movement of all levelling bars. Therefore, do not limit the oil flow on the control panel of the circuit. The flow rate values should range between 75 and 100% capacity.



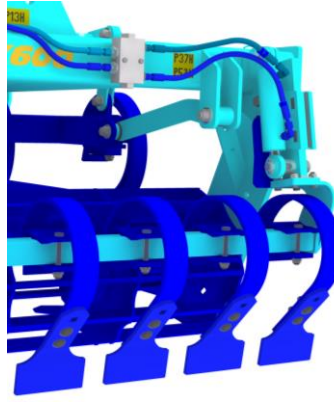
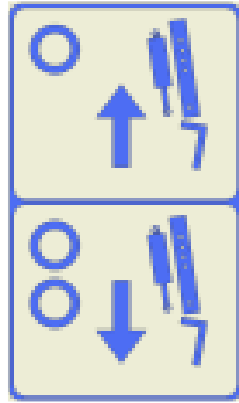
**CB – Front Levelling Bar with Flexible Segments**

- The automatic release of the leveller segments is secured by a flat spring of each segment.
- The preloading of the flat springs can be changed by manually turning the whole row of segments.



- Optionally, it is possible to adjust the levelling bar using an independent hydraulic circuit from the driver's position. Marking of the independent hydraulic circuit (p. 17), required parameters for the hydraulic circuit (p.5).
- The distribution of the hydraulic circuit includes elements providing even movement of all levelling bars. Therefore, do not limit the oil flow on the control panel of the circuit. The flow rate values should range between 75 and 100% capacity.



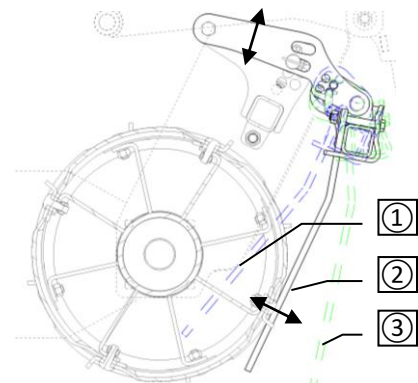
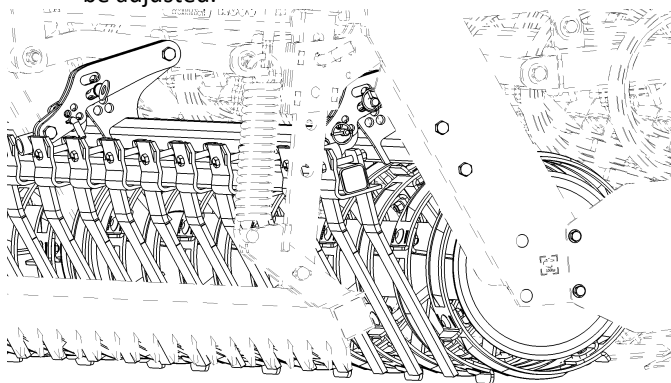


### 6.3 ADJUSTING THE COMPONENTS OF WORKING ROLLERS

- The design of the special roller versions require adjustment in order to provide quality soil processing.
- Always adjust the rollers when the machine is in standstill and observe generally valid labour safety regulations.

#### 6.3.1 RV – RING ROLLERS

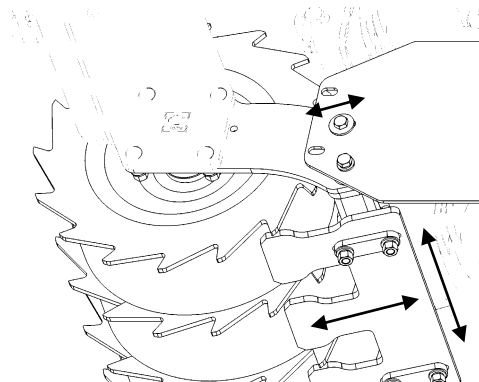
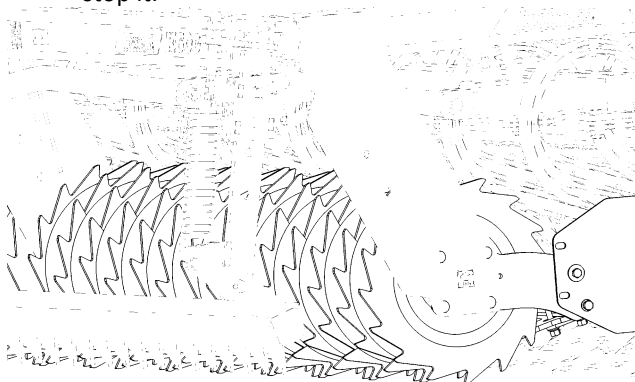
- To keep the quality of soil processing, the position of the digital deflectors against the ring roller must be adjusted.



- Adjusting the position of the deflector is always individual. It depends on the soil and climatic conditions.
  - When set in position ①, the processed soil is spread and thoroughly mixed with the turning segments of the roller.
  - When set in position ②, the processed soil is spread less and not mixed as thoroughly.
  - When set in position ③, the processed soil is not spread and it is compacted with the roller segments. Roller tracks might be visible.

#### 6.3.2 SV – SEGMENTED ROLLERS

- To keep the quality of soil processing, the position of the roller scrapers must be adjusted so that they are as close to the roller casing as possible. The scraper might even lightly touch the roller, but never stop it.





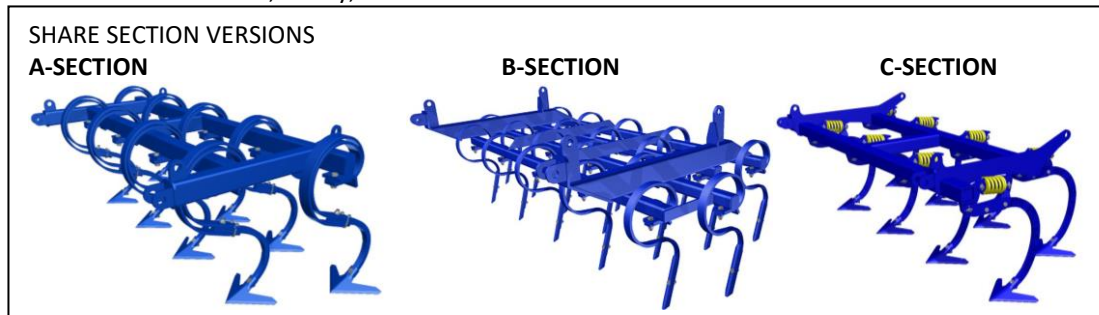


## 6.4 ADJUSTING THE DEPTH OF THE SHARE SECTION

- When adjusting the depth of the shares, always exercise extra caution as the working roller might turn.
- Always adjust the depth of the shares when the machine is in standstill and unfolded into the working position.
- The machine must be lifted in the arms of the tractors so that it does not rest on the shares.
- The working depth of the shares is set in relation to the crop to be planted.

### APPROXIMATE VALUES OF PROCESSING DEPTH

- Beetroot...2-3 cm
- Rapeseed ...3-5 cm
- Wheat, barley, oats ...5-8 cm

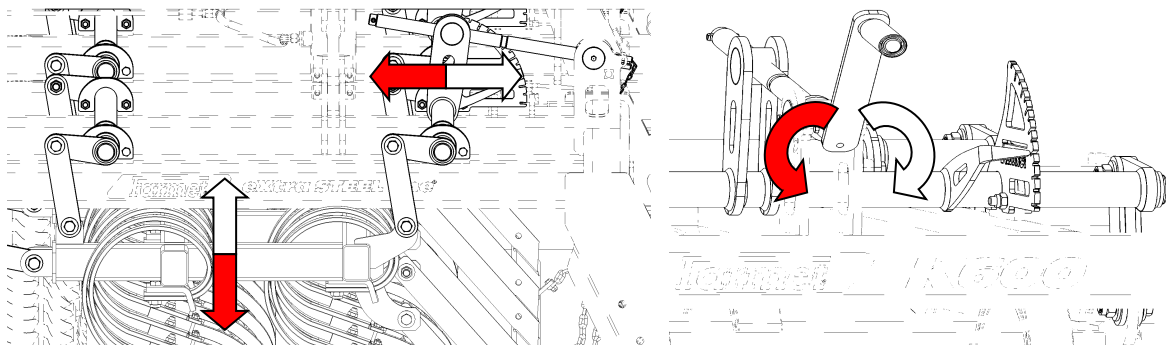


### 6.4.1 MH- MECHANICAL DEPTH SETTING

- Standardly, the depth is set mechanically by turning the handle manually. Each working section of the machine is controlled individually.

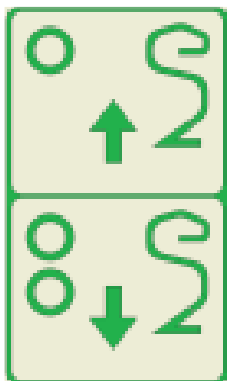
Machine	Number section (pc)
K400NS	2
K500NS, K600NS	3

- The depth setting is increased by turning the handle **anticlockwise** – **red arrows** in the picture.
- The depth setting is decreased by turning the handle **clockwise** – **white arrows** in the picture.
- There is an indicator near the handle that shows that all the sections are set at the same depth.



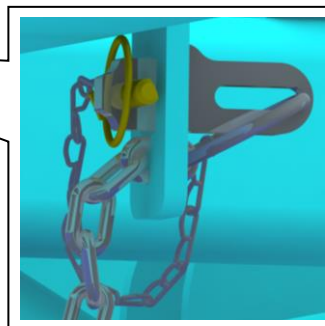
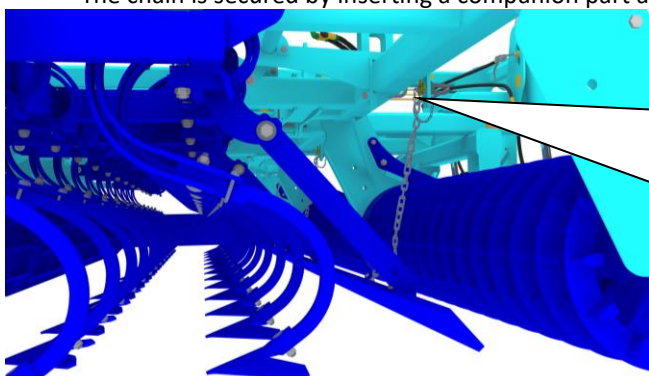
### 6.4.2 HH- HYDRAULIC DEPTH SETTING

- Optionally, it is possible to set the share depth using an independent hydraulic circuit from the driver's position. Marking of the independent hydraulic circuit (p. 17), required parameters for the hydraulic circuit (p. 5).
- There are indicators located in spots visible from the tractor that show that all the sections are set at the same depth.
- The distribution of the hydraulic circuit includes elements providing even movement of all levelling bars. Therefore, do not limit the oil flow on the control panel of the circuit. The flow rate values should range between 75 and 100% capacity.

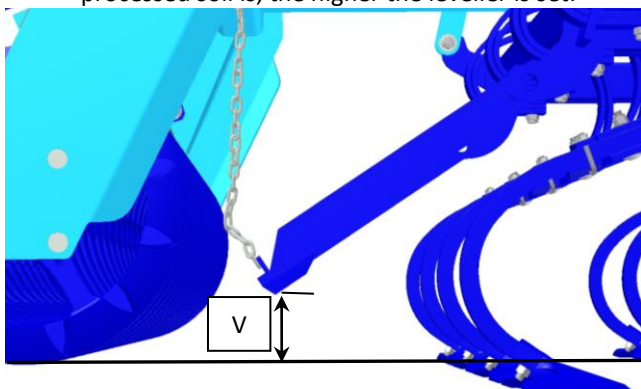


### 6.5 ADJUSTING THE LEVELLER HEIGHT BEHIND SHARES

- Perform the adjustment of the levellers when the machine is unfolded in the working position and standing still.
- The machine must rest on the working sections.
- When adjusting the position of the levellers, always observe generally valid labour safety regulations.
- The leveller behind the shares is used for even spreading of the loosened soil behind the rear row of shares in front of the rear roller.
- Correct position of the leveller affects the resulting quality of processing.
- The position of the leveller is secured by inserting a chain loop into the hole on the supporting frame. The chain is secured by inserting a companion part and a safety pin.

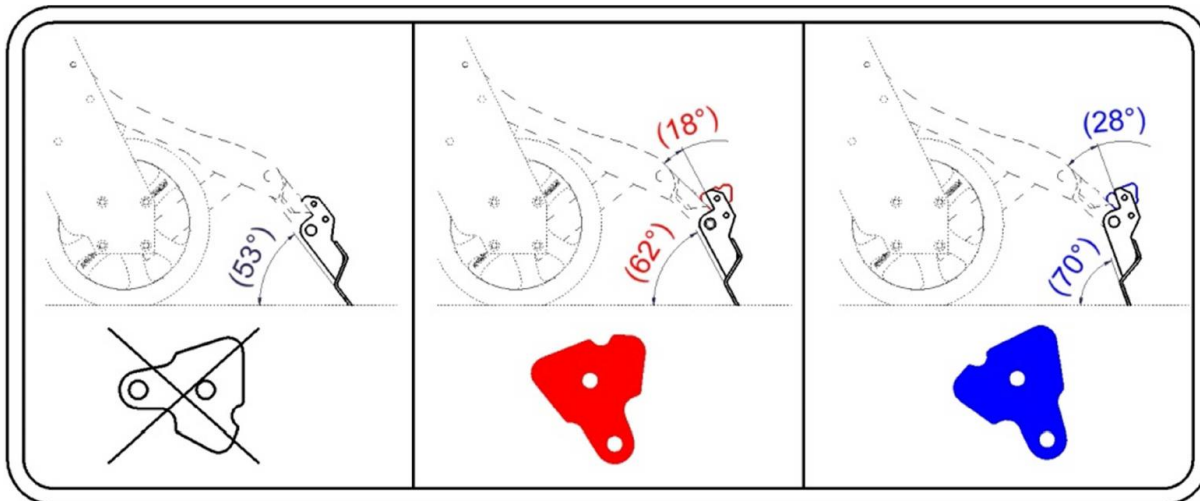


- Set the height of the leveller "V" according to the current soil conditions. Generally, the deeper the processed soil is, the higher the leveller is set.



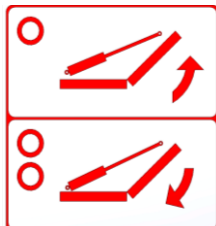
## 6.6 SETTING THE ANGLE OF THE REAR LEVELLER

- Correct angle of the leveller affects the resulting quality of processing.
- When installing the leveller stops, always observe generally valid labour safety regulations.
- The standard angle of the leveller (without stops) can be adjusted by installing the stops. The stops are revolving and there are two versions available. The notch on the stop is used for easier identification of the angle setting.
- The effect of the leveler on the soil is increased by installing stops to increase the angle between the leveler and soil.

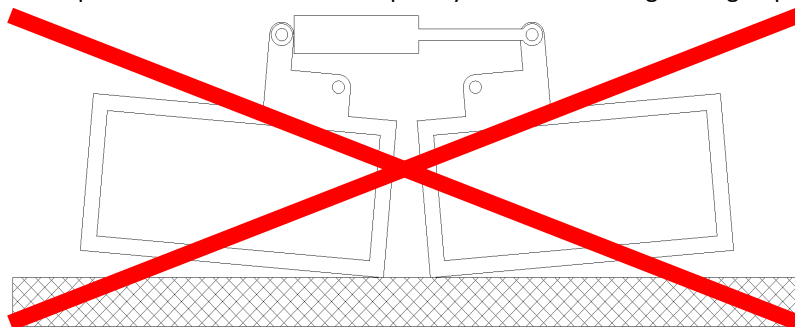


## 6.7 FOLDING AND UNFOLDING SIDE FRAMES

- Execute folding and unfolding of the side frames according to Chapter 4.3.



- The distribution of this hydraulic circuit includes elements providing an even and smooth movement of the folding frames.
- When folding or unfolding the machine, always let the piston-rods draw in or out to the limit position.
- K400NS side frames are folded by piston-rods without any arm and drawbar mechanisms. Therefore, piston-rods must be left completely drawn out during folding to prevent the V-shape of the frames!

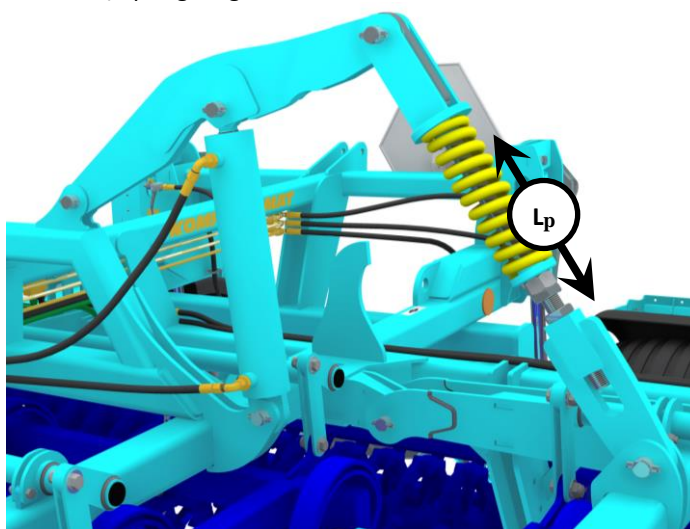


- K500NS and K600NS side frames are folded using the arm and drawbar mechanism.

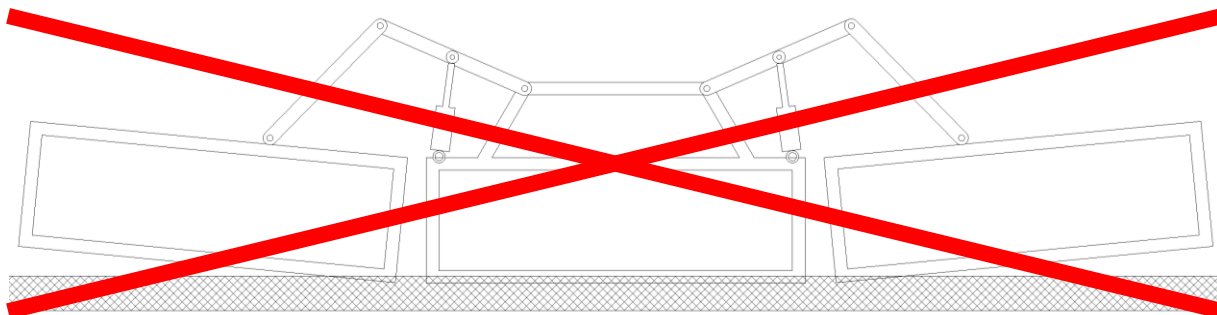
### 6.7.1 ADJUSTING THE FOLDING DRAWBAR SPRING- $L_p$

- The side frame folding mechanism in K500N, K600N includes compressive springs that are very important as they allow unloading the central frame and transferring some of its weight on the side frames.
- Always adjust the length of the spring when the machine is in standstill and unfolded in the working position.
- When adjusting, always observe generally valid labour safety regulations.
- The springs are factory-set to the  $L_p$  spring length.

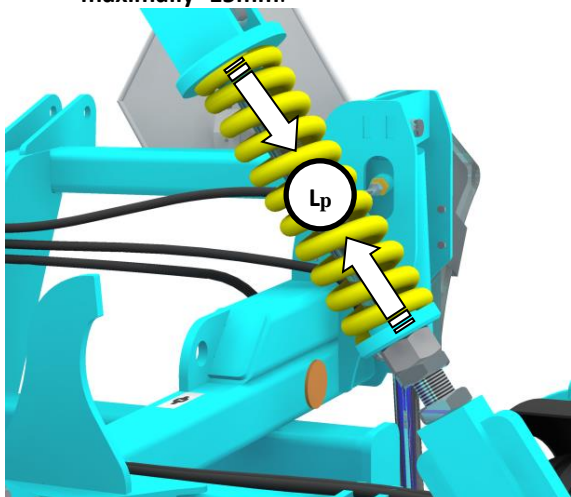
Machine type	$L_p$ (mm)
K500NS	290
K600NS	280



- When the piston-rods are drawn in and the frames of the machine are in the shape of “V” during the field work, it means that the drawbar spring is not preloaded enough and it needs to be adjusted = shortened.



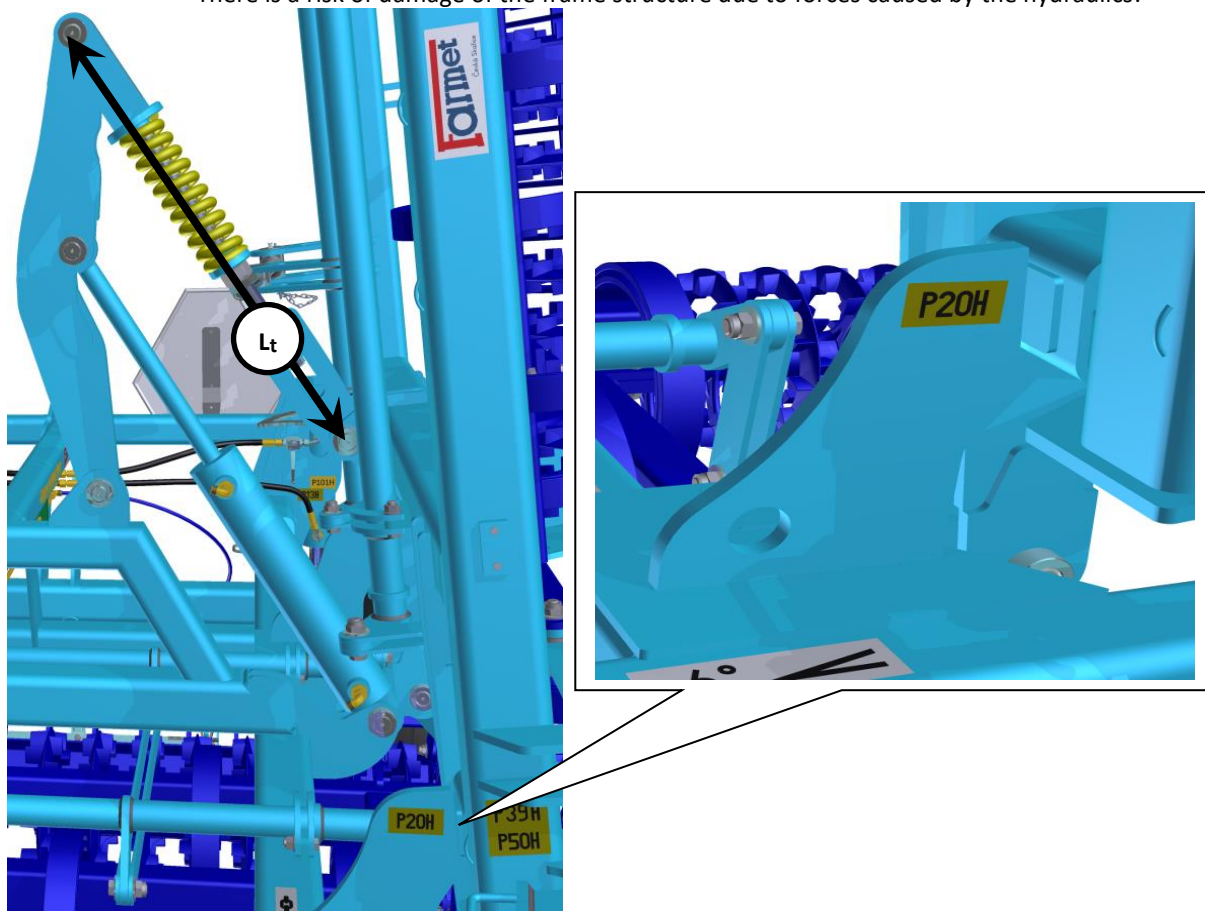
- By shortening the  $L_p$  spring length, the force of the spring is increased and the effect of the unloading of the central frame is greater. The permissible **spring preloading** against the standard dimension is **maximally -15mm**.



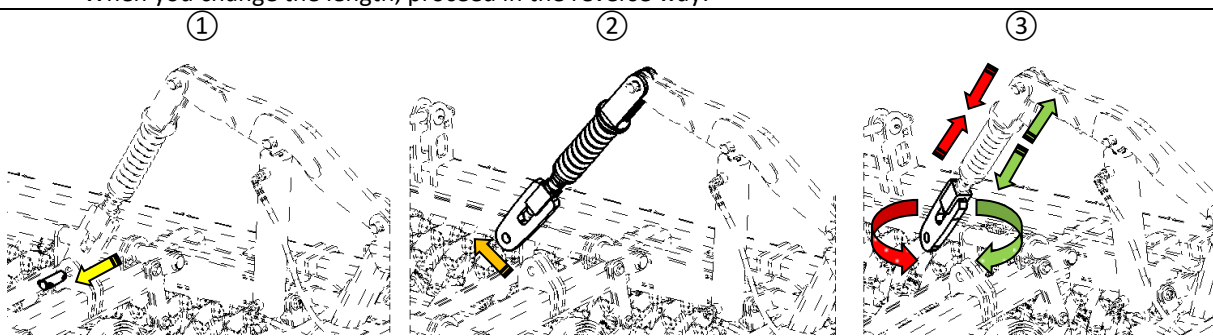


### 6.7.2 ADJUSTING THE LENGTH OF THE DRAWBAR-L<sub>t</sub>

- The side frame folding mechanism in K500NS, K600NS includes adjustable drawbars.
- The springs are factory-set to L<sub>t</sub> = approx. 830mm.
- Always adjust the length of the drawbar when the machine is in standstill and unfolded in the working position.
- When adjusting, always observe generally valid labour safety regulations.
- Recommendations when to change the length of the drawbar L<sub>t</sub>:
  - **SHORTENING THE DRAWBAR**
    - The piston-rod is maximally drawn out when the side frames have been folded but the side frames are not resting on the stops of the central frame. There is a risk of damage to the frame structure during transportation.
  - **EXTENDING THE DRAWBAR**
    - The piston-rod is not maximally drawn out when the side frames have been folded into the transport position but the side frames are already resting on the stops of the central frame. There is a risk of damage of the frame structure due to forces caused by the hydraulics.




- Proceed as follows. Unfold the machine into the working position, ① changing the pin of the drawbar joint to the side frame, ② lift off the drawbar from the side frame, ③ turn the nut of the drawbar. When you change the length, proceed in the reverse way.







## 7. AGGREGATION WITH OTHER EQUIPMENT

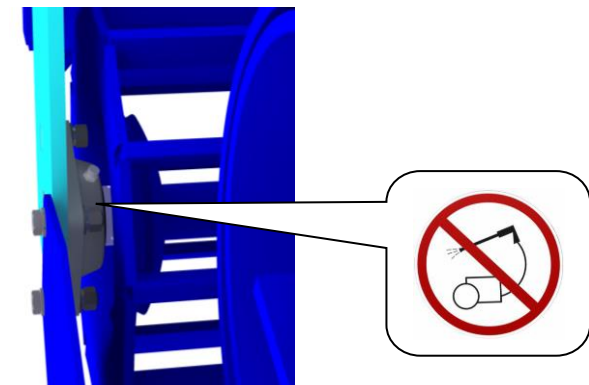
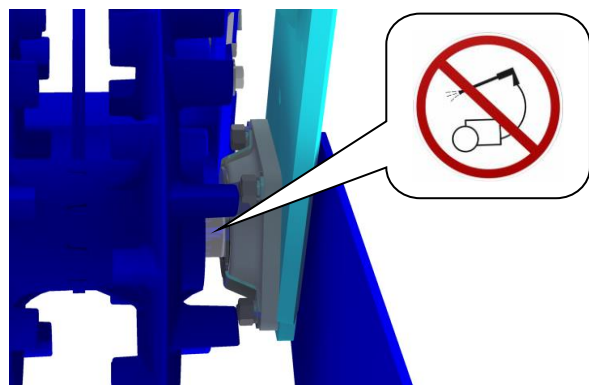
- **Observe the safety instructions and regulations for maintenance and repairs.**
- Check that all screws and other assembly points are tight before each use of the machine and whenever needed.
- Regularly check the wear and tear of the working parts of the machine. The quality of work decreases with the worn working parts.
- Lubricate all indicated lubrication places according to Chapter 7.1.
- Replace shares according to Chapter 7.2.
- Adjusting, cleaning and lubricating the machine may only be performed when the machine is standing still, i.e. the machine is stopped and is not working.
- When adjusting, cleaning, maintaining and repairing the machine, secure the folding and rotary parts of the machine that could put the operator in danger by fall or other movement.
- When repairing the unfolded machine parts, use a suitable support device leaning against labelled places or appropriate places.
- For attaching the machine when manipulating it with the use of lifting equipment, use only places marked by stick-on labels with the symbol of a chain .
- If there is a defect or damage on the machine, immediately turn off the tractor engine and secure the engine from turning on, secure the set and the machine against movement ⇒ then you can remove the defect.
- When repairing the machine, use only original spare parts, suitable tools and protective equipment.
- Order original spare parts according to the Spare Parts Catalogue.
- If you have to weld during the repair and have the machine attached to the tractor at the same time, the supply cables have to be disconnected from the alternator and accumulator.
- Keep the machine clean.



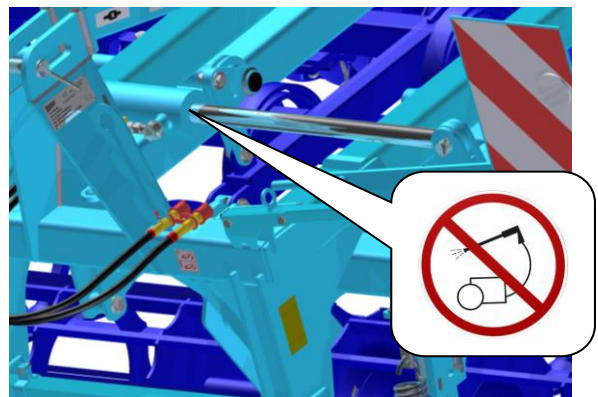
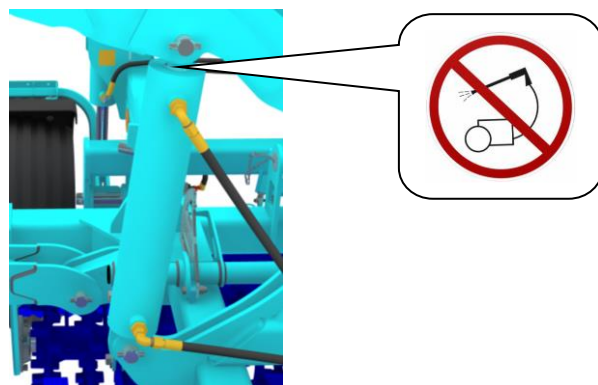
We do not recommend cleaning the hydraulic piston-rods and bearings of working rollers by high-pressure wash or by washing with direct water stream.

The sealing of the piston-rods and bearings of the rollers might get damaged during high-pressure wash or direct stream of water.

**BEARINGS OF ROLLERS**



**PISTON-ROD PARTS**



## RECOMMENDED TIGHTENING MOMENTS OF SCREW CONNECTIONS

SCREW CONNECTION	TIGHTENING MOMENT	NOTE
M8x1	8Nm	Fastening set screws of bearings
M8 (8.8)	25Nm	Hook straps of arrow shares
M10 (8.8)	50Nm	Screws for chisel shares
M12 (8.8)	87Nm	House bearings, hook screws of arrow shares
M12 (10.9)	122Nm	Securing studs of the edge cross-kill wheels
M12 (12.9)	147Nm	Screws for arrow shares
M16 (8.8)	210Nm	Suspension of share frames, folding levellers to the frames, securing screws of the extensible beams for track cultivators
M20 (8.8)	410Nm	Pre-loading of tractive springs of front levellers
M30 (10.9)	2010Nm	Attachment of the hitch holders in K500NS, K600NS
HYDRAULIC CONNECTION	TIGHTENING MOMENT	NOTE
M12x1,5	35Nm	Hydraulic screwing
M16x1,5	60Nm	Hydraulic screwing
M22x1,5	140Nm	Hydraulic screwing

## 7.1. LUBRICATION PLAN FOR THE MACHINE

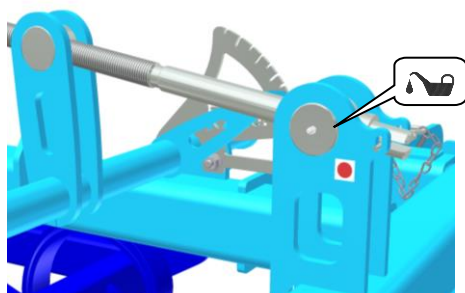
Regular lubrication of lubricating places increases the usable life of the nodes and the machine. Perform lubrication according to the "Lubrication Plan".

When lubricating the bearings of the rollers, observe caution so that you do not damage the bearings. When lubricating the bearings of the rollers, turn the roller around so that the lubricant spreads evenly.

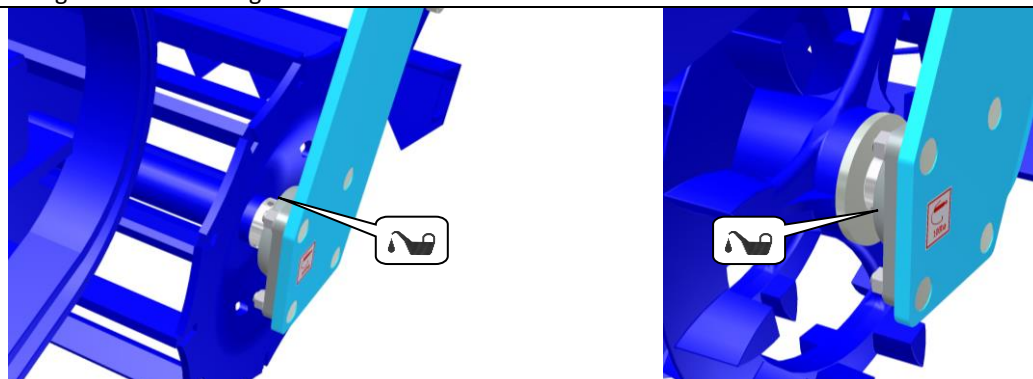
Lubricate the nodes until clean lubricant is coming out of them. Then wipe the lubricant off.

PLACE FOR LUBRICATION	INTERVAL	LUBRICANT
Controlling handle	-Always before work with the machine. - Always after the work and before putting the machine out of operation.	- Plastic lubricant according to DIN 51 502 1) K EP2 - 30 2) KP2P-20 Likx
Working roller bearings	- When working in the field, lubricate once per day or every 100ha	

Lubricating the controlling handle



Lubricating the roller bearings



## **MANIPULATION WITH LUBRICANTS:**



- Treat oils and lubricants as hazardous waste according to valid regulations and acts.
- Protect yourself from direct contact with oils by using gloves or protective lotion.
- Wash oil stains on skin thoroughly with warm water and soap. Do not clean the skin with petrol, diesel oil or other dissolving agents.
- Oil or lubricant is poisonous. If you swallow any, immediately seek a doctor.
  - Keep oil and lubricants out of reach of children.



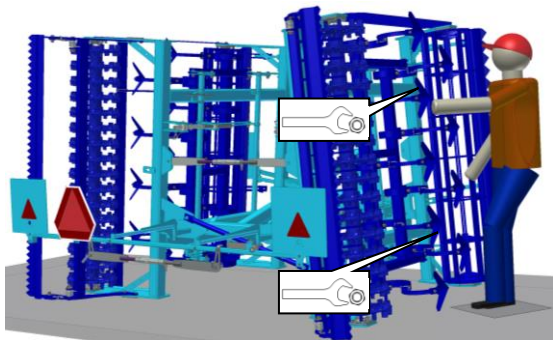
## **7.2. REPLACEMENT OF WORN SHARES**

- Always observe the safety regulations and instructions when replacing shares.
- Replace the shares on solid and even surface and when the machine is standing still.
- If the hydraulic system of the tractor is not tight, you have to provide mechanical supports for the machine pole.

### **7.2.1 REPLACEMENT OF WORN SHARES ON THE MACHINE K400NS**

- The machine does not need to be aggregated with the tractor.
- Place the machine into the transport position according to chapter 4.3.1/p.21.
- Then you can replace the worn shares.

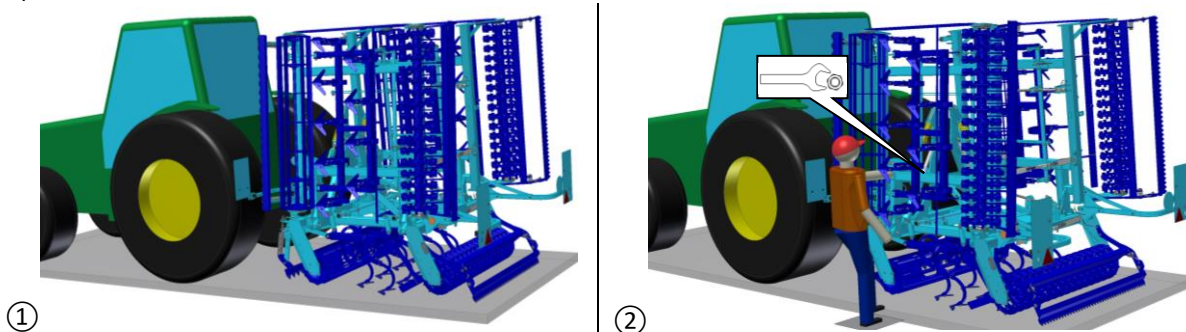
Replacement of shares on the machine K400NS

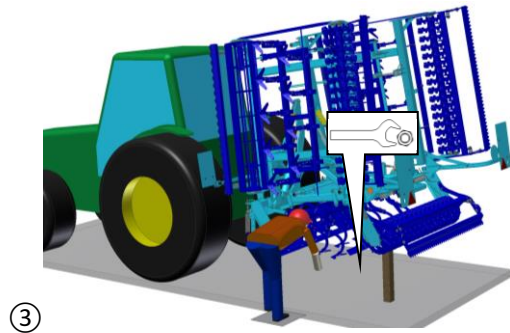
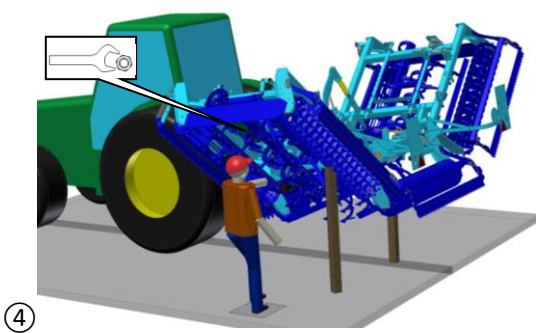


### **7.2.2 REPLACEMENT OF WORN SHARES ON THE MACHINE K500NS, K600NS**

- ① The machine must be aggregated with the tractor according to chapter 4.1/p.16 when shares are replaced. The tractor must be turned off and the operator or repairer must prevent free access of unauthorized persons to the tractor.
- ② Replace the shares that you can reach on the side frames.
- ③ Lift the folded machine, support the machine with a mechanical support against unexpected fall and replace the shares on the central frame.
- ④ To replace shares on the side frames that you cannot reach, unfold the side frames into the position where they are partially unfolded. In this position secure the side frames by a mechanical support against unexpected fall.

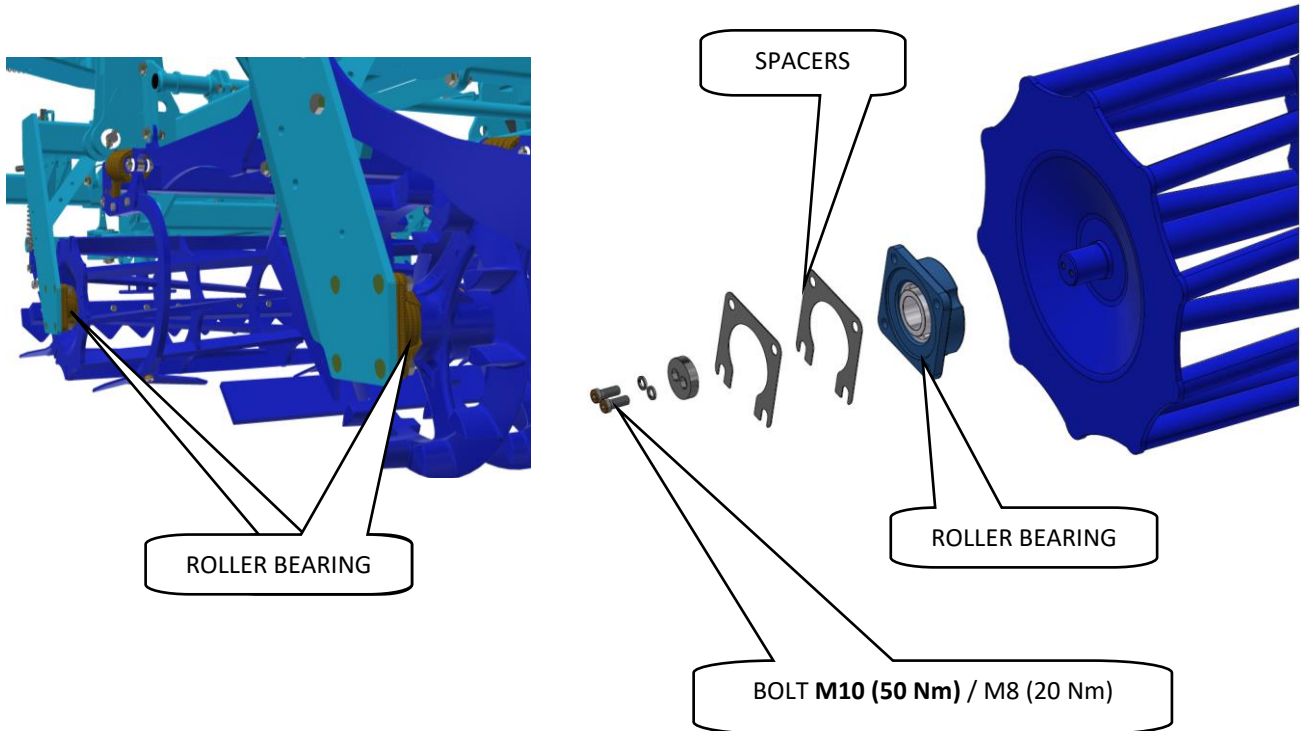
Replacement of shares on the machine K500NS, K600NS





### 7.3. REPLACEMENT OF THE WORKING ROLLER BEARINGS

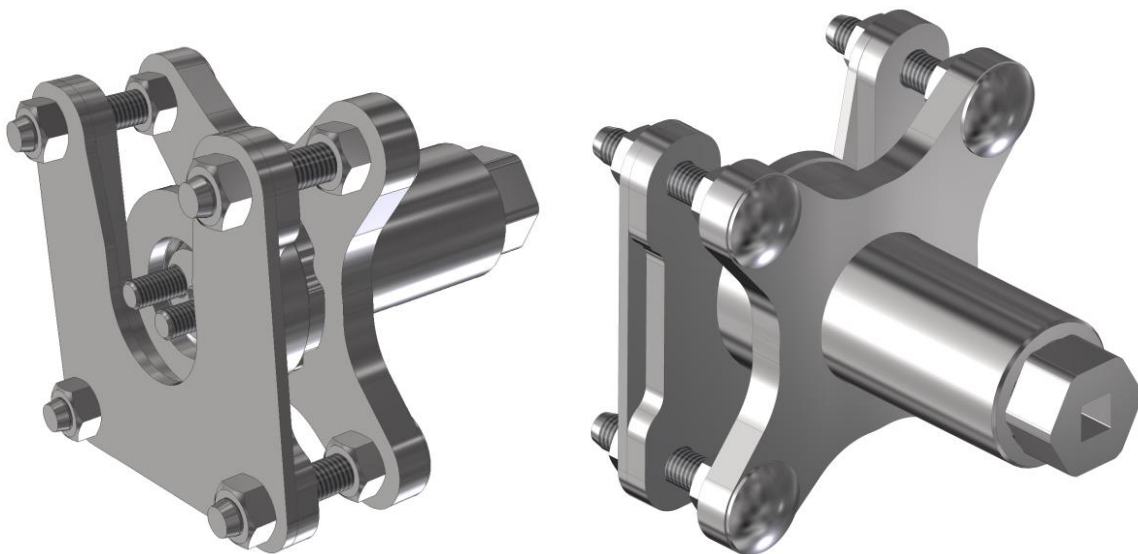
- Always follow the safety regulations and directives when replacing the bearings of rollers.
- The machine must be aggregated with the tractor according to Chapter “4.1/p.16” when replacing the bearings. The tractor engine must be switched off for the replacement of bearings and the operator, or repairman, must prevent any access to unauthorised persons to the tractor.
- Only replace the roller bearings on a solid and flat ground and when the machine is in standstill.
- In the case of leaks in the tractor hydraulic system, you are required to provide mechanical supports under the machine drawbar.



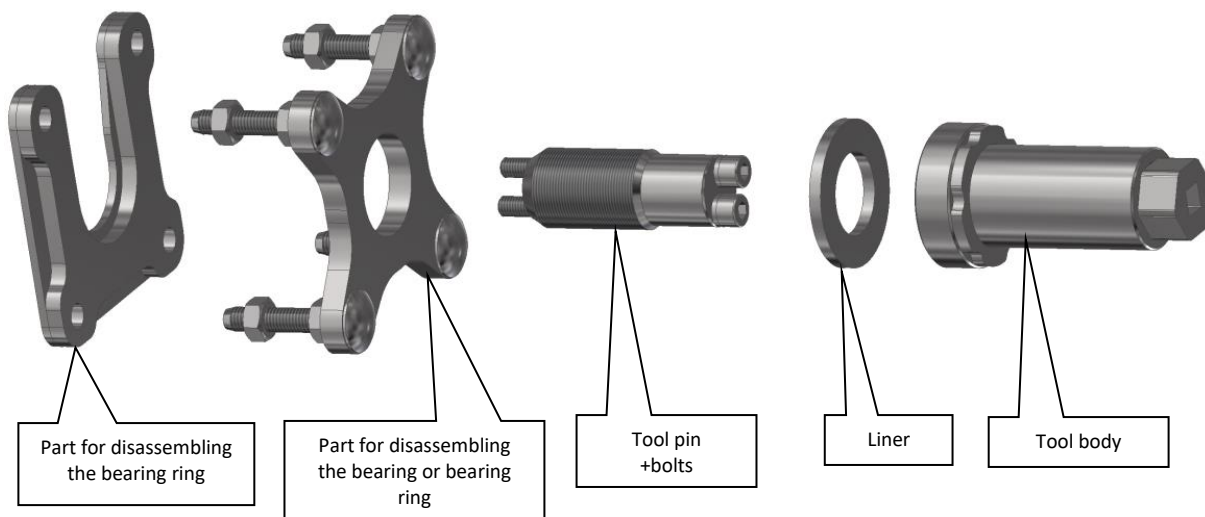


### 7.3.1 USING THE TOOL FOR BEARING DISASSEMBLY AND ASSEMBLY

➤ The tool placed in the box on the machine.



Tool parts:

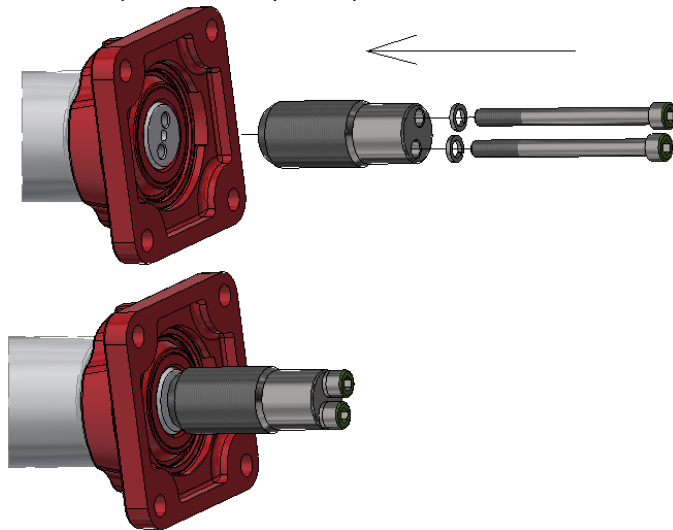




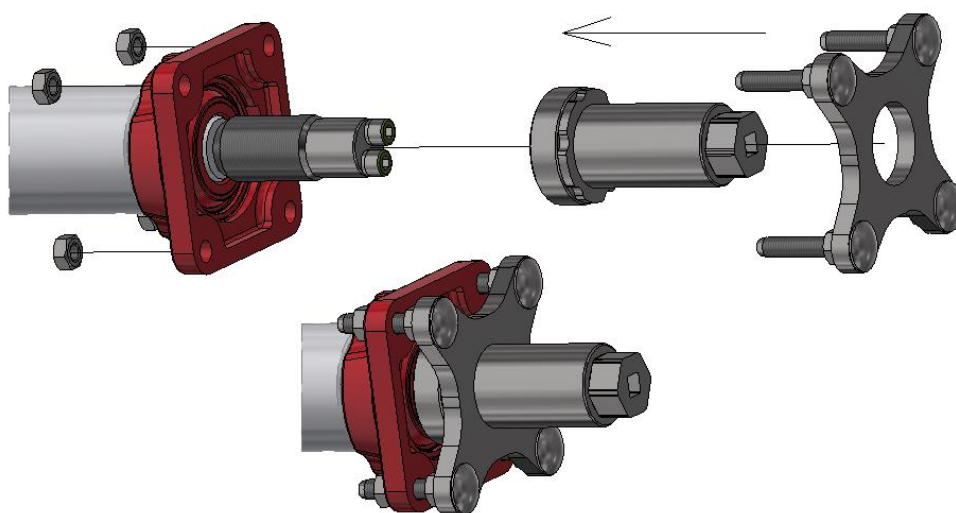
### 7.3.1.1 COMPLETE BEARING DISASSEMBLY

➤ Procedure:

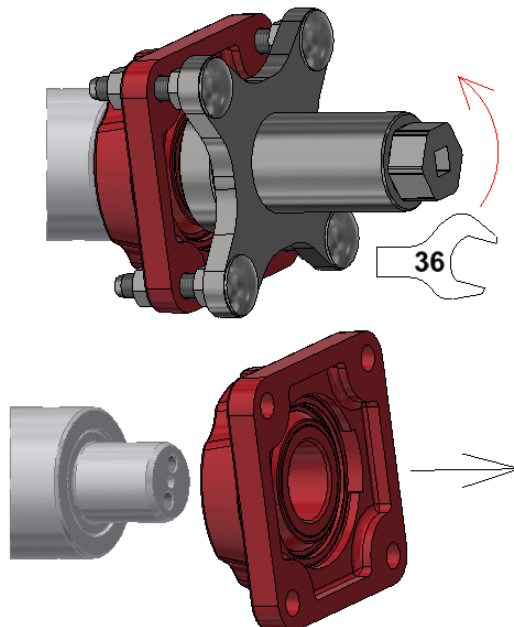
- .1 Mount and screw the tool pin onto the cylinder pin.



- .2 Screw the tool body in, insert the part for bearing disassembly and mount onto the bearing using the nuts.



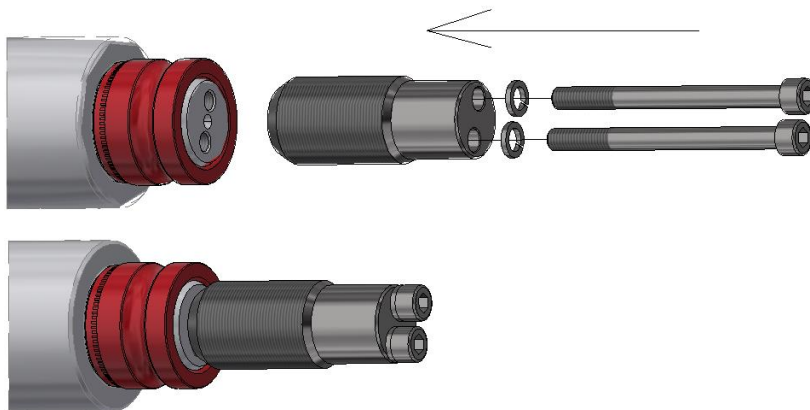
- .3 Disassemble the bearing by screwing the tool body using spanner size 36.



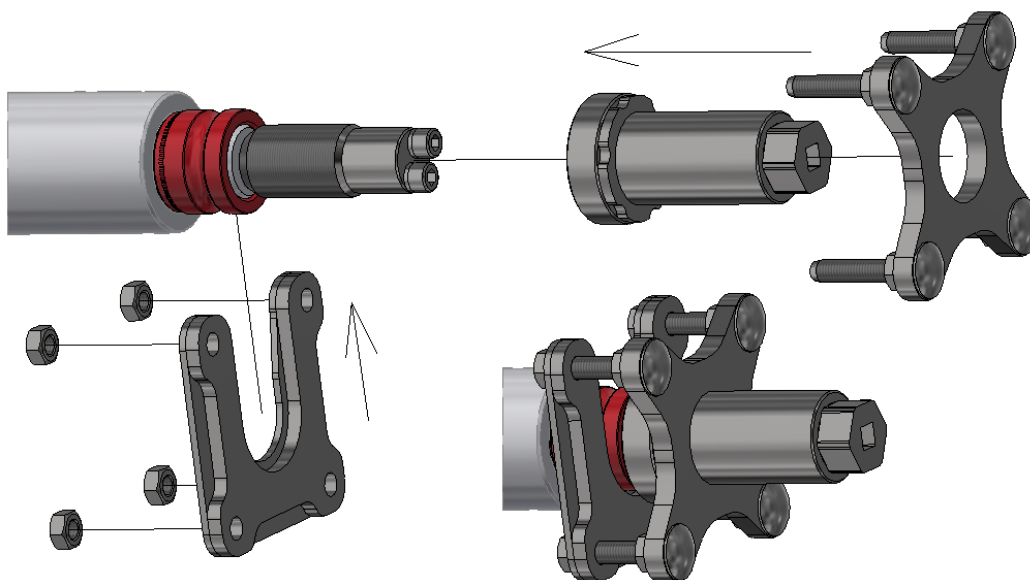
### 7.3.1.2 DISASSEMBLY OF THE RING

➤ Procedure:

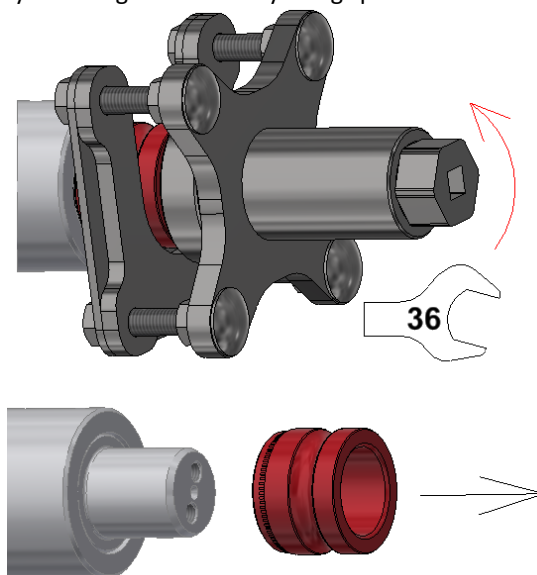
- .1 Mount and screw the tool pin onto the cylinder pin.



- .2 Screw the tool body, mount the part for disassembling the bearing, mount the part for disassembling the ring and attach it using the nuts.



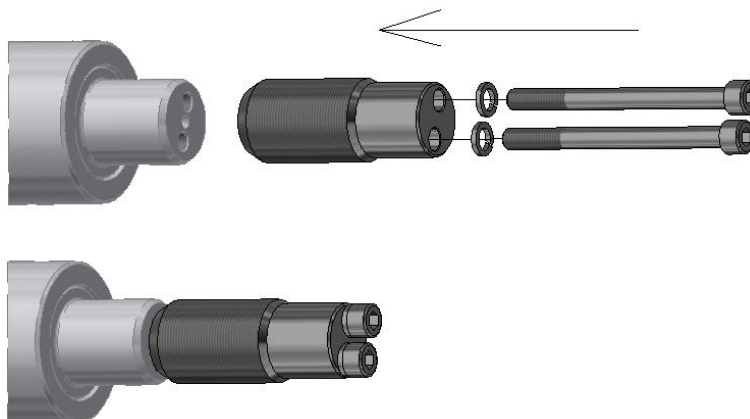
- .3 Disassemble the ring by screwing the tool body using spanner size 36.



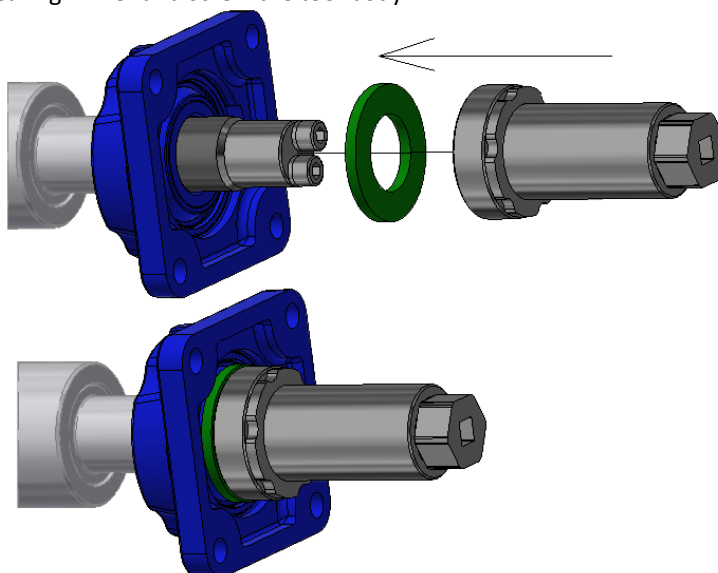
### 7.3.1.3 ASSEMBLING BEARINGS ONTO PINS

➤ Procedure:

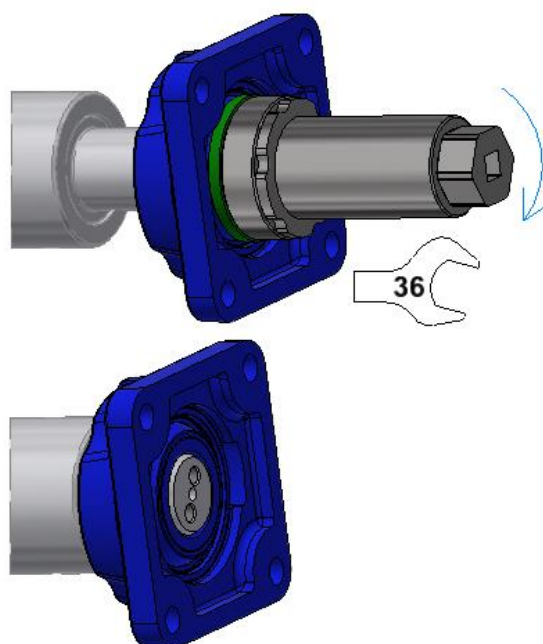
- .1 Mount and screw the tool pin onto the cylinder pin.



- .2 Mount the bearing + liner and screw the tool body in.

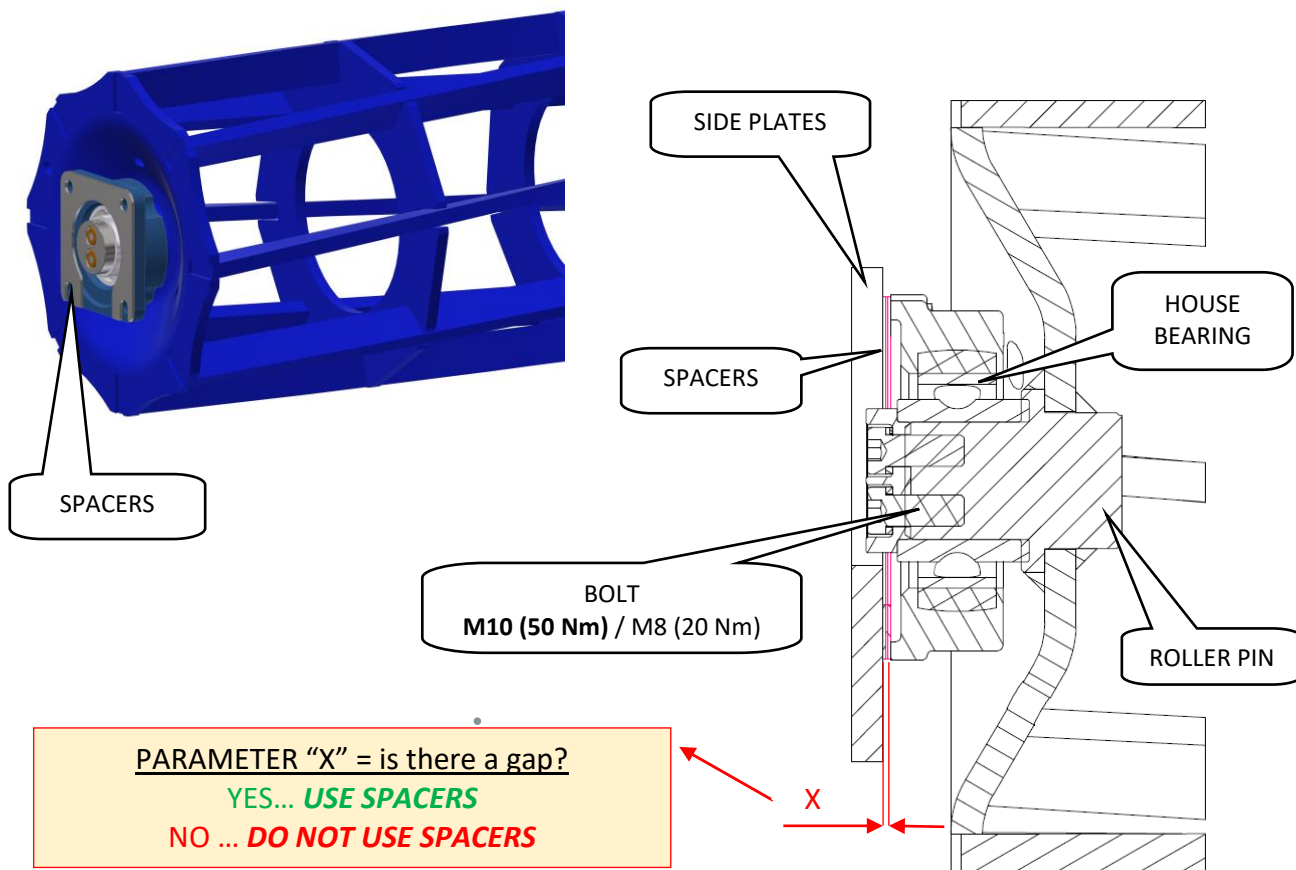


- .3 Assemble the bearing by screwing the tool body using spanner size 36.



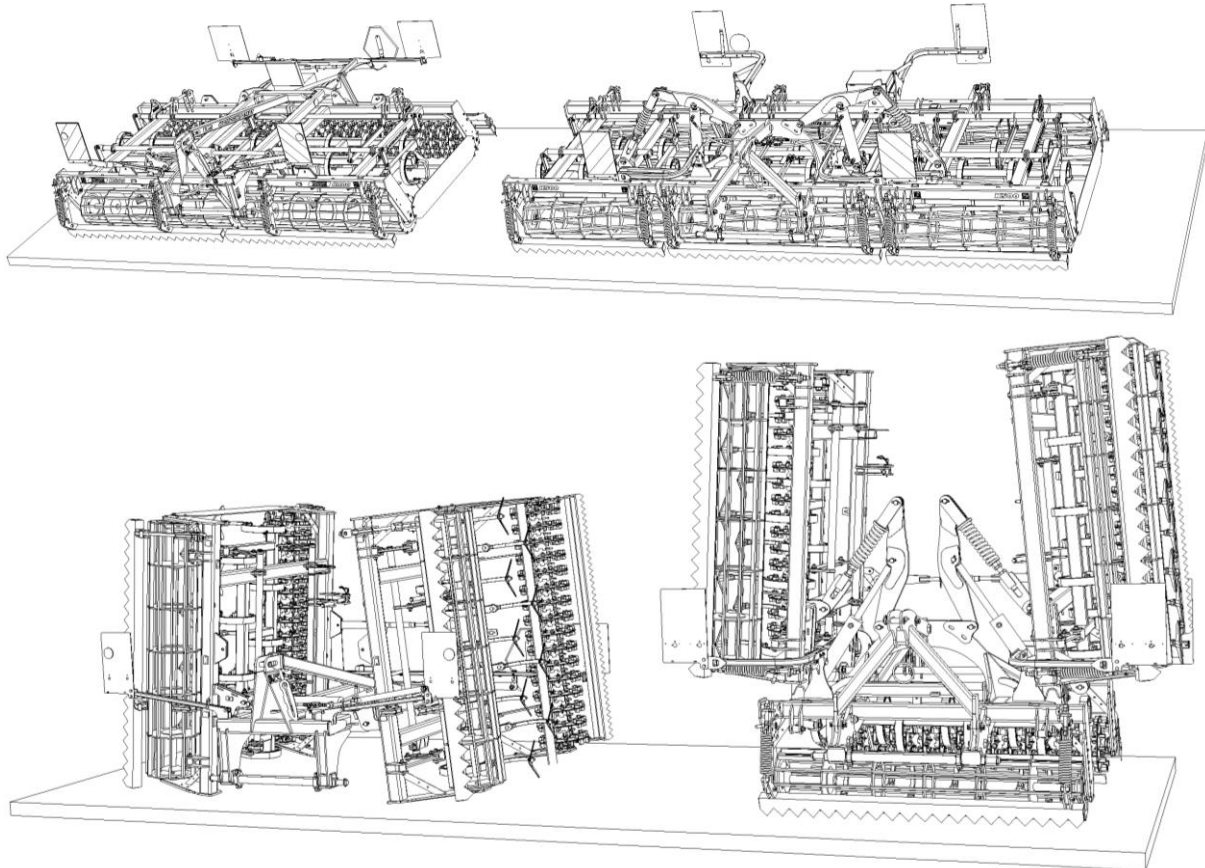
### 7.3.2 USING SPACER

- The spacers are used for defining production tolerances. Therefore, they do not have to be always used.
  - Mount the house bearings to the rollers
  - Insert the roller with the bearings between the frame side plates and assess whether you need to use the SPACERS



## 7.4. MACHINE STORAGE – LONG-TERM MACHINE SHUTDOWN:

- Clean the machine before storing and make sure that the machine is not damaged during the storage. Pay special attention to all labelled lubricating places and lubricate the machine according to the lubrication plan.
- Store the machine on an even and solid ground with sufficient bearing capacity.
- Store the machine under a roof, if possible.
- Prevent access by unauthorized persons to the machine.
- The machine may be stored both in the folded and unfolded condition according to the space dispositions.
- We do not recommend leaving the machine resting on the shares when in standstill. The shares could get damaged.





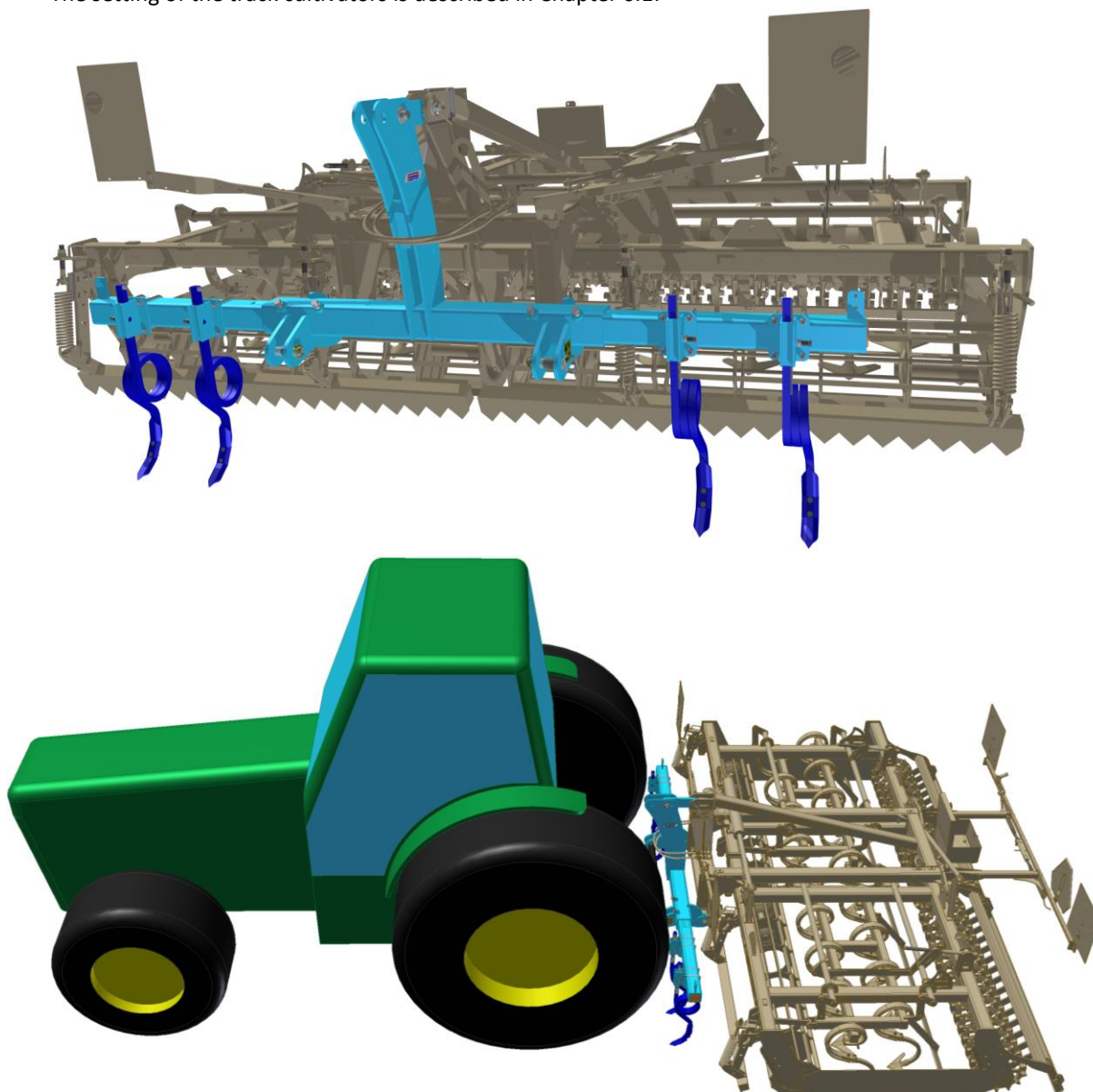
## 8. INSTALLING TRACK CULTIVATORS BEHIND THE MACHINE

- As mentioned above, the track cultivators are not standardly included in the equipment of the mounted Kompaktomat machines.
- The installation of the cultivators moves the centre of gravity of the machine further away from the tractor.
- Pay attention to observing the valid regulations regarding the permitted load of the front axle of the tractor.



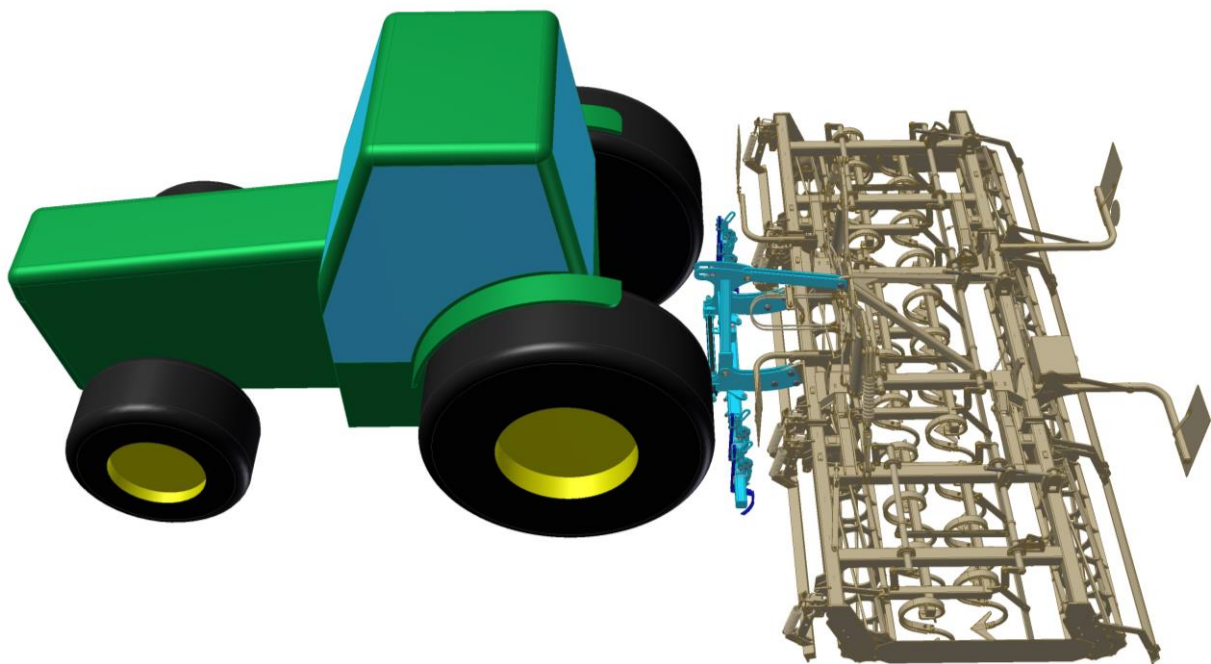
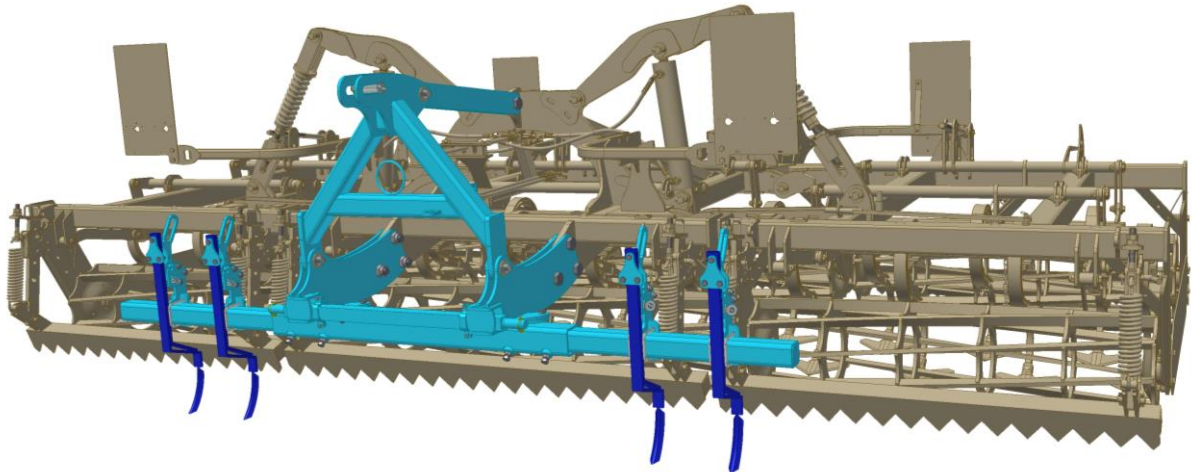
### 8.1. TRACK CULTIVATORS FOR K400NS

- Observe generally valid safety regulations when installing the track cultivators.
- The track cultivators are installed on the frame for the cultivators between the tractor and the machine.
- The frame with the cultivators is attached to the frame of the K400NS machine. The set is aggregated to the rear hitch of the tractor similarly as K400NS without cultivators.
- The setting of the track cultivators is described in Chapter 6.1.



## 8.2. TRACK CULTIVATORS FOR K500NS, K600NS

- Observe generally valid safety regulations when installing the track cultivators.
- The track cultivators are installed by replacing the extended machine hitch holders with the original short ones.
- The frame with the cultivators is attached to the extended hitch holders of the machine. The set is aggregated to the rear hitch of the tractor similarly as machines without cultivators.
- The setting of the track cultivators is described in Chapter 6.1.



## **9. PROTECTION OF ENVIRONMENT**

- Check the tightness of the hydraulic system regularly.
- Replace or repair hydraulic tubes or other parts of the hydraulic system showing signs of damage, before oil starts to leak.
- Check the condition of hydraulic tubes and execute their timely replacement. The usable life of hydraulic tubes also includes the storage time.
- Treat oils and lubricants according to valid acts and regulations on wastes.

## **10. MACHINE DISPOSAL AFTER SERVICE LIFE EXPIR**

- The operator must secure during machine disposal that steel parts and parts, in which hydraulic oil or lubricating grease moves are differentiated.
- Steel parts must be cut by the operator while observing safety regulations and handed over to the secondary raw material collection point. He must proceed with other parts according to valid laws about waste.

## **11. SERVICING AND WARRANTY CONDITIONS**

### **11.1 SERVICING**

Servicing is secured by the dealer after consulting with the manufacturer, possibly directly by the manufacturer. Spare parts then using the sales network by individual sellers in the entire country. Use only the spare parts according to the spare parts catalogue officially issued by the manufacturer.

### **11.2 WARRANTY**

- 11.2.1** The manufacturer provides a warranty of 24 months for these machine parts: main frame, axle, and machine tow bar. For other parts of the machine, the manufacturer provides a warranty of 12 months. The warranty is provided from the date of sale of the new machine to the end user (consumer).
- 11.2.2** The warranty applies to hidden defects that will show in the warranty period with proper use of the machine and while fulfilling the conditions stated in the operating manual.
- 11.2.3** The warranty does not apply to wearable spare parts, i.e. regular mechanical wear and tear of replaceable parts of the working sections (shares, edges, etc.).
- 11.2.4** The warranty does not apply to indirect consequences of possible damage, such as service life decrease etc.
- 11.2.5** The warranty is bound to the machine and is not void upon an owner change.
- 11.2.6** The warranty is limited to the disassembly and assembly, possibly replacement or repair of the defective part. The decision, whether to replace or repair the defective part, is up to the contractual workshop of Farmet.
- 11.2.7** During the warranty period, only the authorised servicing technician of the manufacturer may perform repairs or other interventions into the machine. In the opposite case, the warranty will not be acknowledged. This provision does not apply to the replacement of wearable spare parts (see point 11.2.3).
- 11.2.8** The warranty is conditioned by using the genuine spare parts of the manufacturer.

(CZ) **ES PROHLÁŠENÍ O SHODĚ**  
 (GB) **CE CERTIFICATE OF CONFORMITY**  
 (D) **EG-KONFORMITÄTSERKLÄRUNG**  
 (F) **DÉCLARATION CE DE CONFORMITÉ**  
 (RU) **СЕРТИФИКАТ СООТВЕТСТВИЯ ЕС**  
 (PL) **DEKLARACJA ZGODNOŚCI WE**

1. (CZ) My (GB) We (D) Wir (F) Nous (RU) Мы (PL) My: **Farmet a.s.**  
 Jiřinková 276  
 552 03 Česká Skalice  
 Czech Republic  
 DIČ: CZ46504931  
 Tel/Fax: 00420 491 450136

(CZ) Vydáváme na vlastní zodpovědnost toto prohlášení. (GB) Hereby issue, on our responsibility, this Certificate. (D) Geben in alleiniger Verantwortung folgende Erklärung ab. (F) Publiions sous notre propre responsabilité la déclaration suivante. (RU) Под свою ответственность выдаем настоящий сертификат. (PL) Wydajemy na własną odpowiedzialność niniejszą Deklarację Zgodności.

2. (CZ) Strojní zařízení: - název : **Nesený sklápěný kompaktomat**  
 (GB) Machine: - name : **Mounted unfolding Kompaktomat**  
 (D) Fabrikat: - Bezeichnung : **Klappbare Anbaugeräte Kompaktomat**  
 (F) Machinerie: - dénomination : **Compactomats de portage basculants**  
 (RU) Сельскохозяйственная машина: - наименование : **Навесной складной компактомат**  
 (PL) Urządzenie maszynowe: - nazwa : **Zawieszony opuszczany Kompaktomat**

- typ, type : **KOMPAKTOMAT-NS**  
 - model, modèle : **K 400 | 500 | 600 NS**  
 - (CZ) výrobní číslo :   
 - (GB) serial number  
 - (D) Fabriknummer  
 - (F) n° de production  
 - (RU) заводской номер  
 - (PL) numer produkcyjny

3. (CZ) Příslušná nařízení vlády: č.176/2008 Sb. (směrnice 2006/42/ES). (GB) Applicable Governmental Decrees and Orders: No.176/2008 Sb. (Directive 2006/42/ES). (D) Einschlägige Regierungsverordnungen (NV): Nr.176/2008 Slg. (Richtlinie 2006/42/ES). (F) Décrets respectifs du gouvernement: n°176/2008 du Code (directive 2006/42/CE). (RU) Соответствующие постановления правительства: № 176/2008 Сб. (инструкция 2006/42/ES). (PL) Odpowiednie rozporządzenia rządowe: nr 176/2008 Dz.U. (Dyrektywa 2006/42/WE).

4. (CZ) Normy s nimiž byla posouzena shoda: (GB) Standards used for consideration of conformity: (D) Das Produkt wurde gefertigt in Übereinstimmung mit folgenden Normen: (F) Normes avec lesquelles la conformité a été évaluée: (RU) Нормы, на основании которых производилась сертификация: (PL) Normy, według których została przeprowadzona ocena: ČSN EN ISO 12100, ČSN EN ISO 4254-1.

(CZ) Schválil (GB) Approve by dne: 01.02.2019  
 (D) Bewilligen (F) Approuvé  
 (RU) Утвердил (PL) Uchwalif

Ing. Petr Lukášek  
 technický ředitel  
 Technical director



**Farmet a.s.**  
 Jiřinková 276  
 552 03 Česká Skalice  
 DIČ CZ46504931  
 59

V České Skalici dne: 01.02.2019

Ing. Karel Žďárský  
 generální ředitel společnosti  
 General Manager

