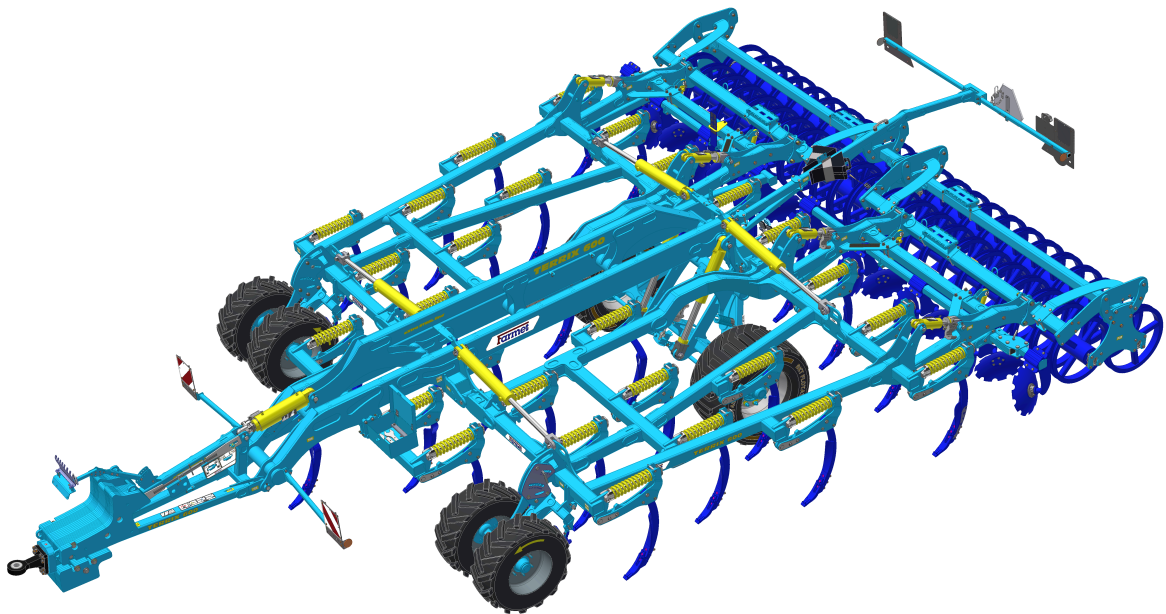


OPERATING MANUAL

TERRIX

450 PS | 600 PS



Edition: **4**

Effective from: **01.01.2025**

FARMET a.s.
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on 12.02.2025, changes reserved

PREFACE

Dear customer,

The agricultural machine you have purchased is a high-quality product 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 (Your Machine Characteristics). This machine serial number must be stated whenever ordering spare parts for possible repairs. The production label is located on the frame .

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

Possibilities of use of your machine

The **TERRIX** cultivator is designed for cultivation of all types of soils up to a processing depth of 350 mm.

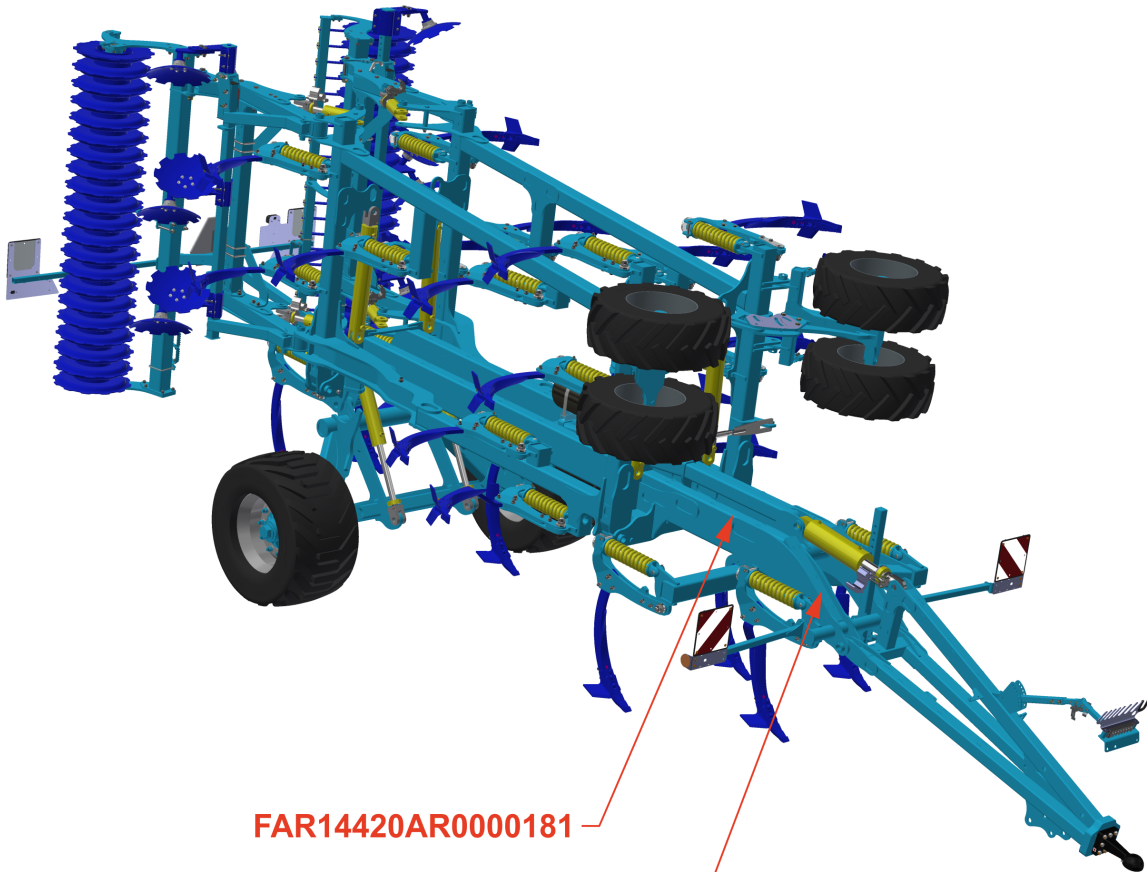
Your machine characteristics :

MACHINE TYPE :

MACHINE SERIAL NUMBER :

SPECIAL DESIGN OR ACCESSORIES :

Production label of the machine TERRIX



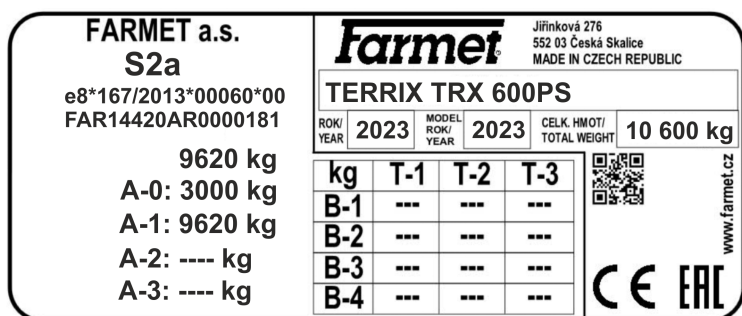
FAR14420AR0000181

1	FARMET a.s.	Farmet	Jiřínková 276	10
	S2a		552 03 Česká Skalice	
	e8*167/2013*00060*00		MADE IN CZECH REPUBLIC	
2	FAR14420AR0000181	TERRIX TRX 600PS		
3		ROK/ 2023 MODEL 2023 CELK. HMOT/ 10 600 kg		
4	9620 kg	YEAR YEAR YEAR TOTAL WEIGHT		
5	A-0: 3000 kg	kg T-1 T-2 T-3		11
6	A-1: 9620 kg	B-1 --- --- ---		12
7	A-2: ---- kg	B-2 --- --- ---		13
8	A-3: ---- kg	B-3 --- --- ---		
9		B-4 --- --- ---		

www.farmet.cz

CE EAC

Self adhesive statutory plate 70x140



1	Vehicle category according to EU Nr. 167/2013
2	Approval number
3	Seventeen-digit serial number (VIN)
4	Technically permissible maximum laden mass of the vehicle
5	Maximum vertical load on the coupling point
6	Permissible load – axle 1
7	Permissible load – axle 2
8	Permissible load – axle 3
9	Technically permissible towable mass for each chassis/braking configuration for R or S category vehicle
10	Commercial name, general description and purpose
11	Total weight
12	Year of production
13	QR code, marking of a specific machine

IMPORTANT

READ CAREFULLY BEFORE USE

KEEP FOR FUTURE REFERENCE

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1 MACHINE LIMIT PARAMETERS

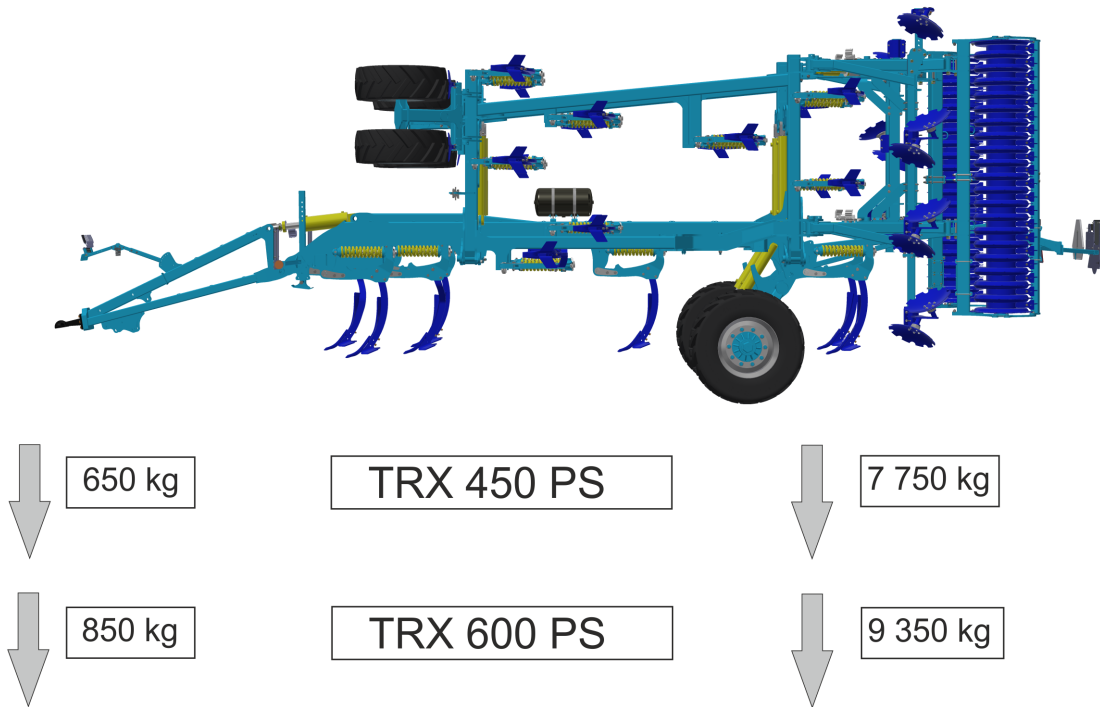
- The machine is designed for soil loosening in agricultural cultivation. Another type of use exceeding the determined purpose is forbidden.
- The machine is only operated by one person – the tractor driver.
- Machine operator must not use the machine in a different way, especially:
 - Transport of persons and animals on the machine structure,
 - Transport of burdens on the machine structure,
 - Aggregation of the machine with another towing equipment than stated in Chapter 9.1.

1.1 Technical parameters

PARAMETERS	TERRIX 450 PS	TERRIX 600 PS
Working width	4 500 mm 14,76 ft	6 000 mm 19,68 ft
Transport width	3 000 mm 9,84 ft	
Transport height	3 340 mm 10,96 ft	4 000 mm 13,12 ft
Machine total length	10 500 mm 34,45 ft	
Working depth	100 – 350 mm 3,94 – 13,78 in	
Number of chisels (+Track Cultivators)	23	29
Working performance	3,6 – 5,4 ha/h 8,9 – 13,3 ac/h	4,8 – 7,2 ha/h 11,9 – 17,8 ac/h
Towing means	225 – 350 kW 300 – 450 HP	350 – 460 kW 450 – 600 HP
Working speed	8 – 12 kph 4,97 – 7,46 MPH	
Maximum transport speed	30 kph 18,6 HP	
Maximum slope grade	6 (°)	
Tyre dimensions - transport	550 / 45 – 22,5	
Machine weight	8 400 kg 18 519 lb	10 200 kg 22 487 lb

* Recommended towing means, the real towing force may significantly vary according to the processing depth, soil conditions, land slope, working body wear and adjustment.

WEIGHT DISTRIBUTION ON THE MACHINE DURING TRANSPORT



QUICK START



1.2 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.

2 GENERAL INSTRUCTIONS FOR USE

- 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.
- 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! The manufacturer is not liable for damages caused by the use of the machine that is in contradiction with the limit parameters of the machine and with the instructions for the use of the machine. The user bears the risk. Immediately remove especially the failures that may negatively affect safety!
- Machine operation may be performed by a person authorised by the operator under these conditions :
 - It must own a valid driver's licence of the corresponding category,
 - It must be demonstrably familiarised with the safety regulations for work with the machine and must practically master the machine operation,
 - The machine may not be operated by juveniles,
 - It must know the meaning of the safety signs located on the machine. Their respecting is important for safe and reliable machine operation.
- Maintenance and servicing repairs on the machine may only be performed by a person :
 - Authorised by the operator,
 - Educated in the machinery field with knowledge of repairs of similar machines,
 - Demonstrably familiarised with safety regulations for work with the machine,
 - During a repair of a machine connected to a tractor, it must own a driver's licence of the corresponding category.
- Machine operator must secure the safety of other persons when working with the machine or transporting the machine.
- During machine work in the field or during transport, the operator must control the machine from the tractor's cabin.
-  The operator may enter the machine structure only with the machine at rest and blocked against movement, namely only for these reasons:
 - Adjustment of the machine working parts,
 - Repair and maintenance of the machine,
 - Release and securing of spherical valves of the axle,
 - Securing of spherical valves of the axle before folding the side frames,
 - Adjustment of the working parts of the machine after unfolding the side frames.
-  When stepping on the machine, do not step on roller tyres or other rotary parts. Those may turn and you can cause very serious injuries by the subsequent fall.


-  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.
-  The operator must have the Operating Manual with the work safety requirements available at any time when working with the machine.
- 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 equipment



-  For operation and maintenance use:
 - tight clothes
 - protective gloves and goggles against dust and sharp parts of the machine.



3 MACHINE TRANSPORT USING TRANSPORT MEANS

- 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.
- The dimensions of the transported machine including the transport means must comply with the valid regulations for road traffic (decrees, laws).
-  The transported machine must be always fastened to the transport means so that its spontaneous loosening could not happen.
- The carrier is responsible for damage caused by the loosening of incorrectly or insufficiently fastened machine to the transport means.

4 MACHINE HANDLING USING LIFTING EQUIPMENT

- 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.
-  • Machine fastening for handling may only be performed in places designed for that and marked with self-adhesive labels showing the "chain" symbol. 
- After fastening (suspending) at designated points, it is forbidden to move in the space of possible reach of the handled machine.

5 WORK SAFETY LABELS

Warning safety labels serve for operator protection.

General:

- Strictly observe the warning safety labels.
- All safety instructions also apply to other users.
- Upon damage or destruction of the aforementioned "SAFETY LABEL" located on the machine, THE OPERATOR IS OBLIGED TO REPLACE IT WITH A NEW ONE!!!
- The position, appearance and the precise meaning of the work safety labels on the machine are determined in the following tables and the figure .

WARNING SAFETY LABEL	LABEL TEXT	MACHINE POSITION
	<p>Before handling the machine, carefully read the operating manual. Observe the instructions and safety regulations for machine operation during use.</p>	P 1 H
	<p>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.</p>	P 2 H
	<p>Stay outside the reach of the tractor - agricultural machine set, if the tractor engine is in operation.</p>	P 6 H
	<p>Before starting to transport the machine, secure the axle with ball valves against unexpected drops.</p>	P 13 H
	<p>When folding the side frames, do not reach into the space of the machine folding joints. There is a danger of cutting when setting the depth of the machine.</p>	P 20 H
	<p>Travelling and transport on the machine structure is strictly forbidden.</p>	P 37 H

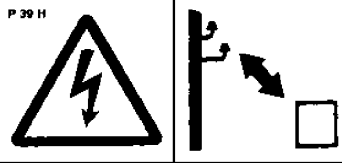

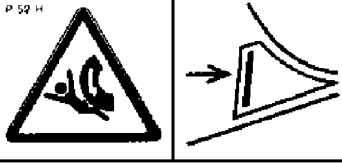
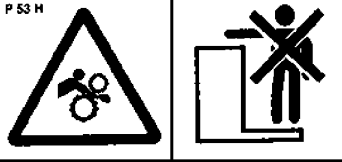

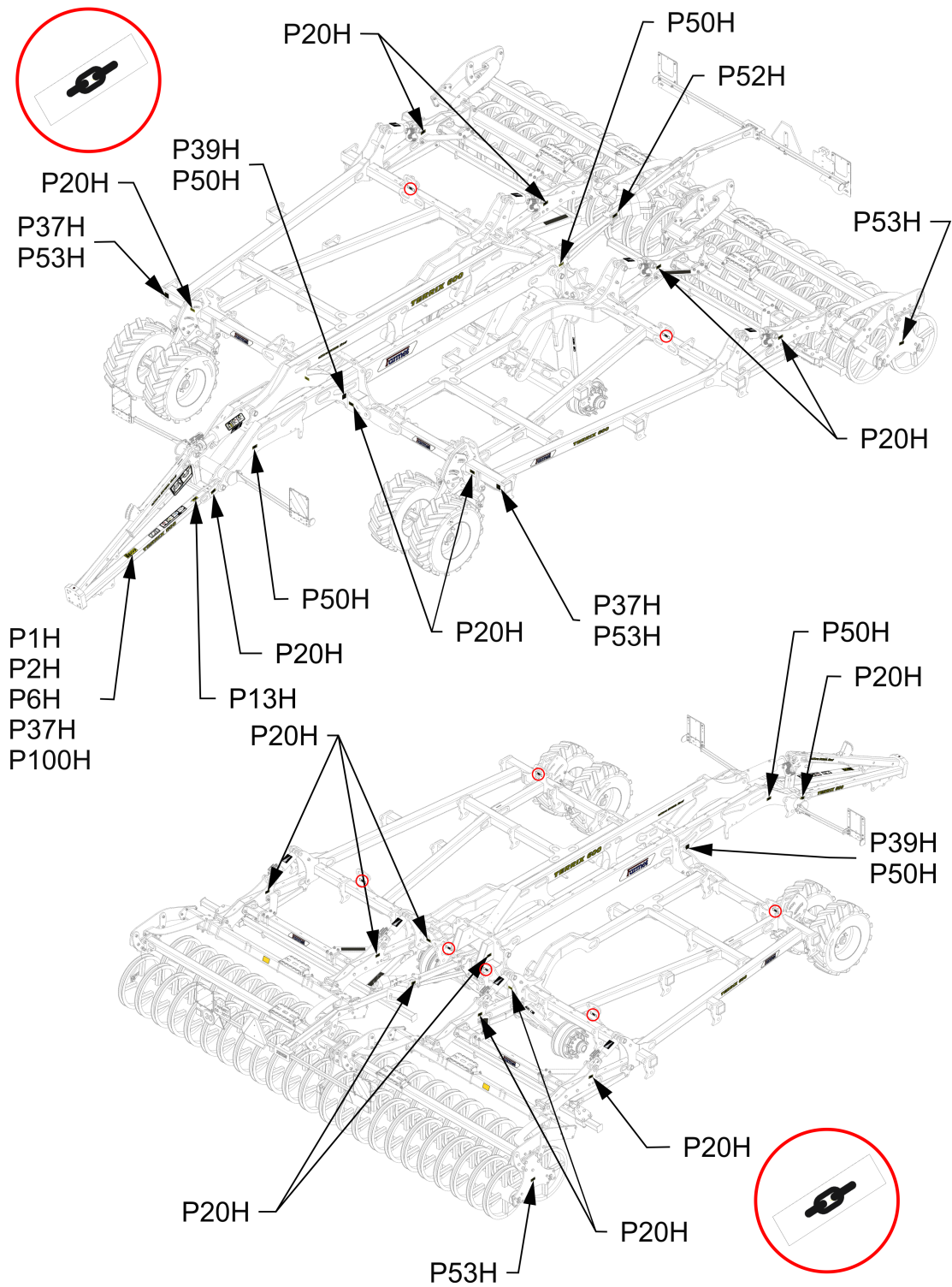
	<p>When working and transporting the machine, maintain safe distance from the electric appliances.</p>	<p>P 39 H</p>
	<p>When folding and unfolding the side frames, stay outside their reach.</p>	<p>P 50 H</p>
	<p>Secure the machine against unwanted movement by stopping it on its working organs (coulters).</p>	<p>P 52 H</p>
	<p>Do not approach the rotary parts of the machine, if these are not at rest, i.e. they do not turn.</p>	<p>P 53 H</p>
	<p>It is strictly folding and unfolding the side frames on slopes or inclined surfaces.</p>	<p>P 100 H</p>

Fig. 1 - Location of safety labels on the machine



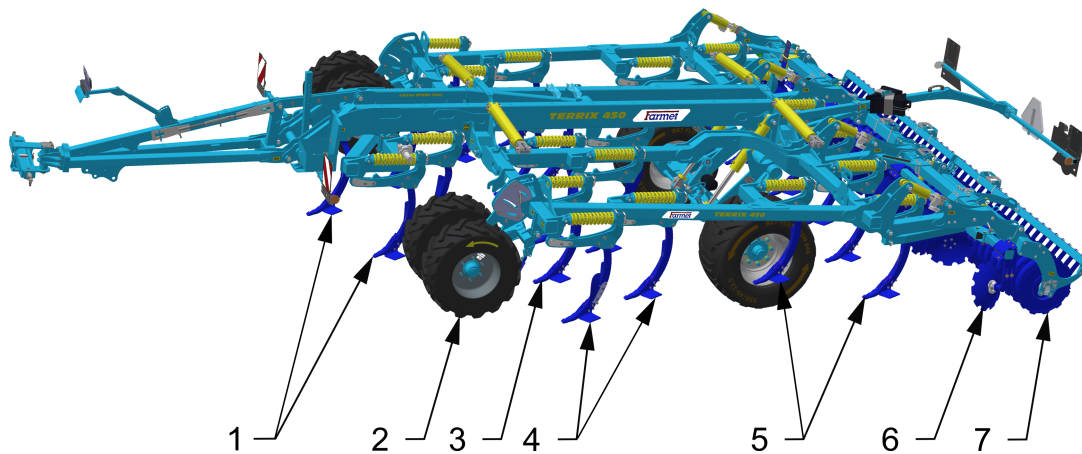
6 DESCRIPTION

TERRIX is structurally designed as a semi-carried folding machine.

The basic version consists of a drawbar with loop for the lower hinge \varnothing 50 mm, \varnothing 70 mm, hinge K80 \varnothing 80 mm or TPH categories 3 and 4, a central frame with a transport axle and two side frames. Automatic spring-loaded adjusting shares are arranged in rows on the middle and side frames. Behind the last row of shares is a row of levelling discs which level the soil. In the back, there are rollers that pack down the loosened soil.

6.1 Working parts of the machine

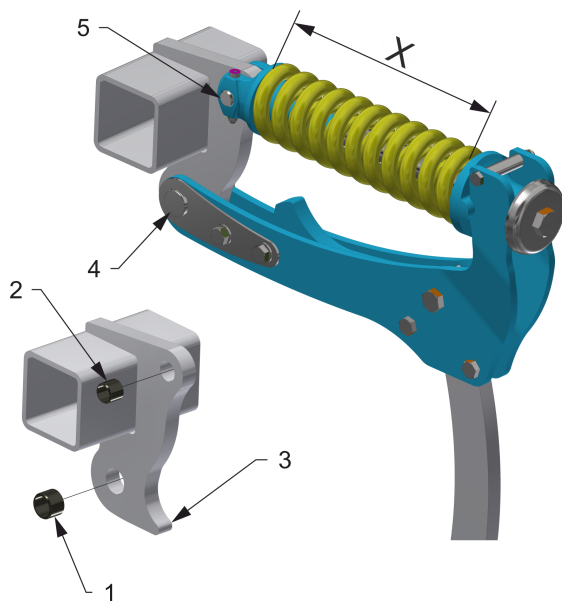
Fig. 2 - Work Parts of the Machine



- 1 – Row of tines
- 2 – Supporting wheel
- 3 – Row of tines
- 4 – Row of tines
- 5 – Row of tines
- 6 – Levelling discs
- 7 – Roller

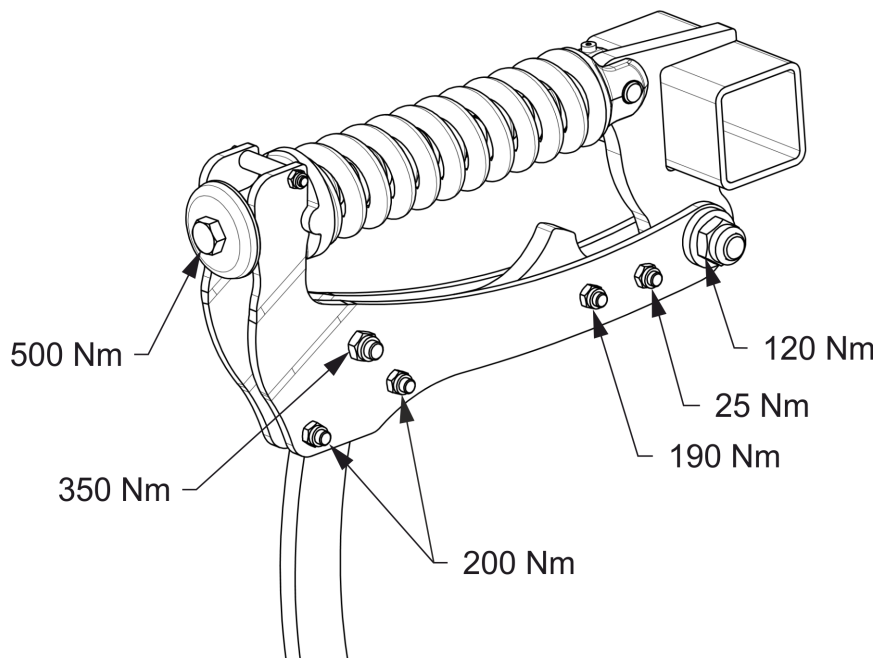
6.1.1 Chisel work unit

- The basic setting of the securing spring (X) is performed by the manufacturer at 390±5 mm (15,35±0,20 in) so it is horizontal.
- Regularly check the nut tightening of the lower and the upper pivot of the securing, tighten as needed.
- Regularly check the nut tightening of the main screw of the securing (500 Nm).
- Follow the prescribed torques.



1. Lower hardened case
2. Upper hardened case
3. Safety back stop
4. Lower pivot
5. Upper pivot

- Tighten the main screw when the spring is free



OFFER OF CHISELS



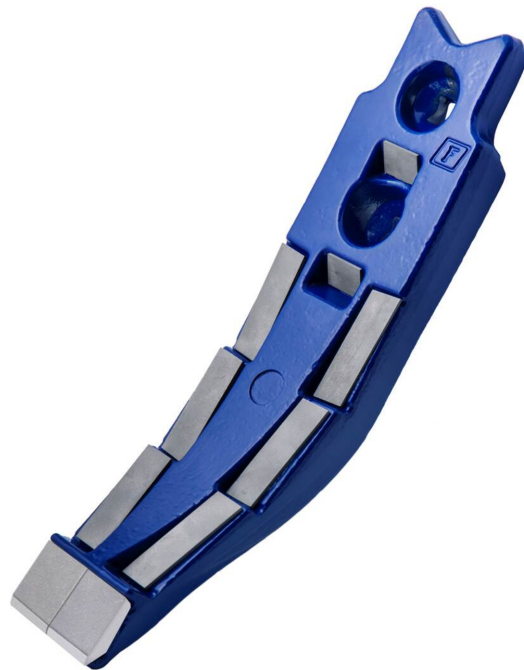
CHISEL 40 CARBIDE



CHISEL 75 CARBIDE



CHISEL 75 MULTICARBIDE

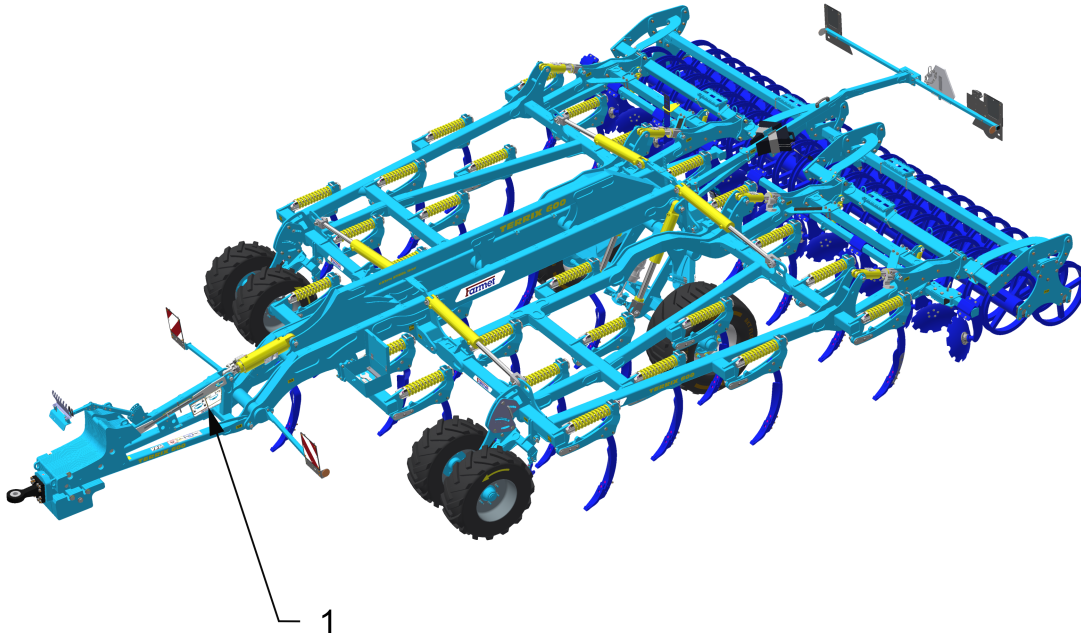


CHISEL 75 MULTICARBIDE PRO

7 HYDRAULICS

7.1 Closing (ball) valve function

- The machine uses shut-off (ball) valves – Group of valves assembled in combination with control levers on a clear panel on the drawbar.



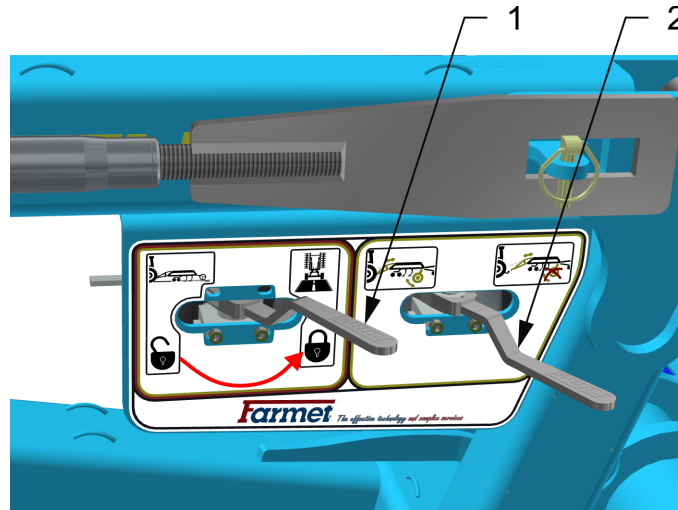
1 – Control panel with levers

7.1.1 Valve lock for crossing



These ball valves on the drawbar must be closed for transportation!!!

- The shut-off valves are used in the folding section (red) and in the transport axle lift (yellow)



- 1 – Locking for transport by communication
- 2 – Axle stopping



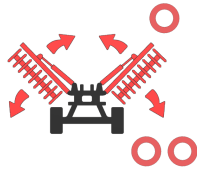
When driving the machine on roads, it is necessary to have the locking lever of the machine in the RIGHT position for transport, i.e. locked, and the ball valve of the drawbar piston rod closed according to the sticker on the drawbar.

7.2 Machine hydraulics

- When disconnecting the quick-couplers, both valves on the drawbar must be closed in the same way as for road transportation.
- 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.
- To connect the hydraulic system of the machine to the tractor, use plugs (on the machine) and sockets (on the tractor) of the same type of quick couplers. Connect the machine's quick couplers to the tractor's hydraulic circuits in such a way that tilting the side frames of the **RED DUST CAPS** are on the first control circuit, lifting the machine on the axle of the **YELLOW DUST CAPS**, on the second circuit, control the alignment of the rear alignment discs with the **BLUE DUST CAPS** on the third control circuit and control the working depth of the machine on the rollers with the **WHITE DUST CAPS** on the fourth control circuit.



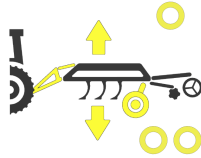
To prevent movement of the hydraulics caused unintentionally or by unauthorised persons (children, passengers), the control valves on the tractor must be secured or locked when not in use or in the transport position.



RED DUST CAPS – controlling the side frame folding

1 TAPE – lifting of side frames up, i.e. putting the machine in transport position. (To fold the machine frames, the machine has to be lifted to the highest position on the axle to switch on the safety valve in the rear of the machine.)

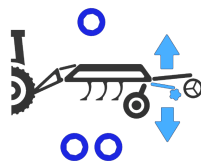
2 TAPES – unfolding of side frames down, i.e. putting the machine in work position.



YELLOW DUST CAPS – controlling the transport axle

1 TAPE - lifting the machine into the transport position, i.e. axle is lowered down

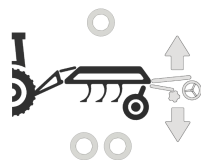
2 TAPES - the machine is lowered to the working position, i.e. the axle is lifted up from the ground.



BLUE DUST CAPS – controlling the position of the rear packer discs

1 TAPE - lifting the packer discs

2 TAPES - recessing the packer discs



WHITE DUST CAPS – setting the depth

1 TAPE - lifting the rollers (increasing the working depth)

2 TAPES - lowering the rollers (decreasing the working depth)



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.

7.3 Using the hydraulics control panel

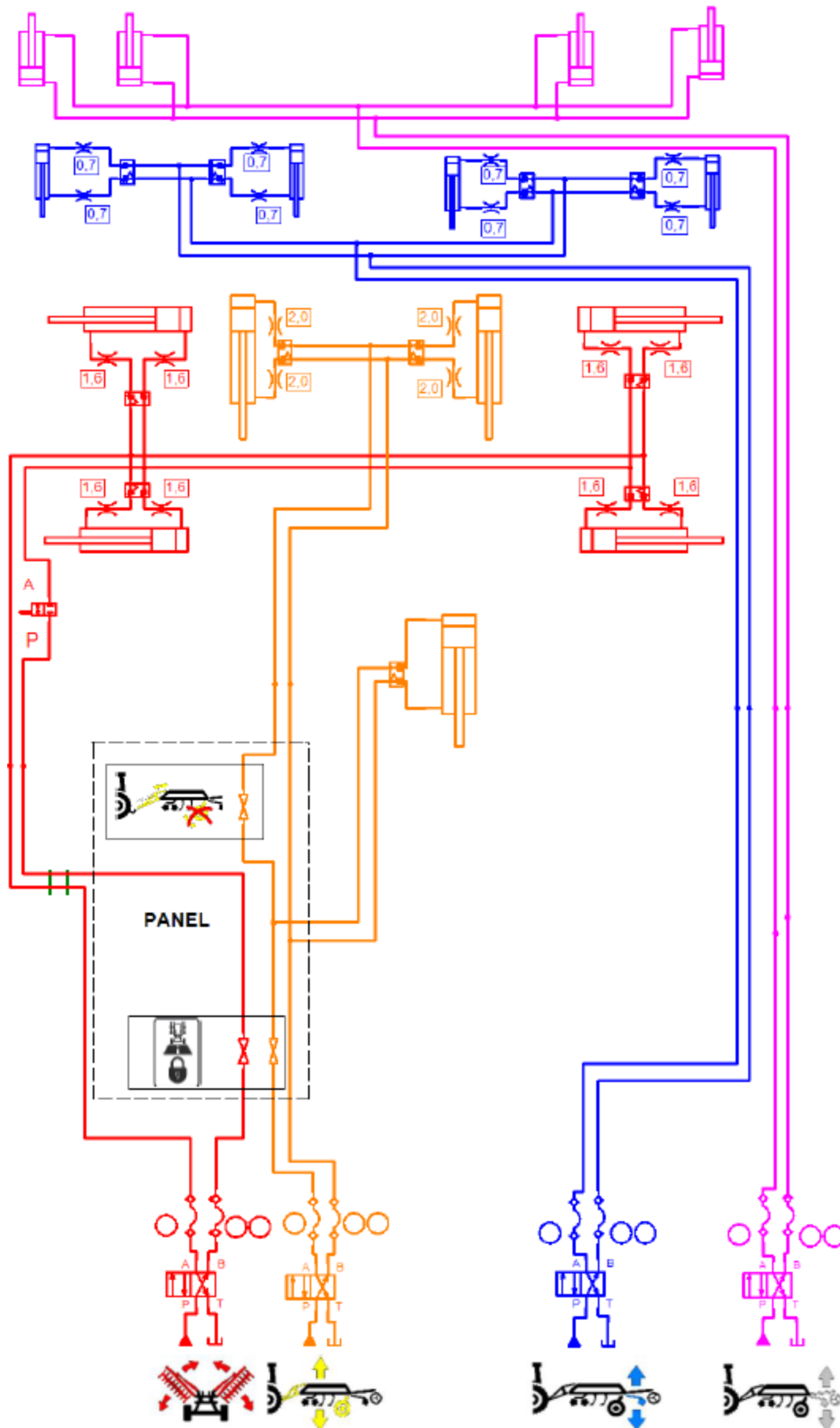
- There is a control panel with up to 2 levers on the drawbar .
- Moving the levers opens or closes the ball valves in the hydraulic circuits.
- The lever positions according to the pictograms below determine the setting of the hydraulic circuits for the required function of the machine.
- The individual levers are also colour-coded for easier orientation of the operator, in accordance with the hydraulic circuits controlled by the corresponding lever.
- **ATTENTION!** When moving the lever, some parts of the machine may start to move.

	<p>When driving the machine on road, the lever that locks the machine for transport has to be in the RIGHT position, i.e. locked.</p>
--	--

LEVER FOR LOCKING THE MACHINE FOR TRANSPORT	
	<p>LEFT POSITION The machine is in the working position. The YELLOW circuit of the axle and the drawbar piston-rod are open and the piston-rods can move. The RED circuit is also open, enabling the lifting and unfolding of side frames.</p>
	<p>RIGHT POSITION The machine is in the transport position. The YELLOW axle circuit and the drawbar piston-rod are closed. The RED circuit is closed. Lifting and unfolding of side frames is blocked.</p>

AXLE STOP LEVER	
	<p>LEFT POSITION The YELLOW circuit is set in the initial condition, i.e., both the axle and the drawbar piston-rod are controlled at the same time.</p>
	<p>RIGHT POSITION The YELLOW circuit is set for machine aggregation, i.e., the axle does not move, only the drawbar piston-rod does. The operator is thus able to adjust the height of the hitch as needed during the aggregation of the machine to the pulling vehicle.</p>

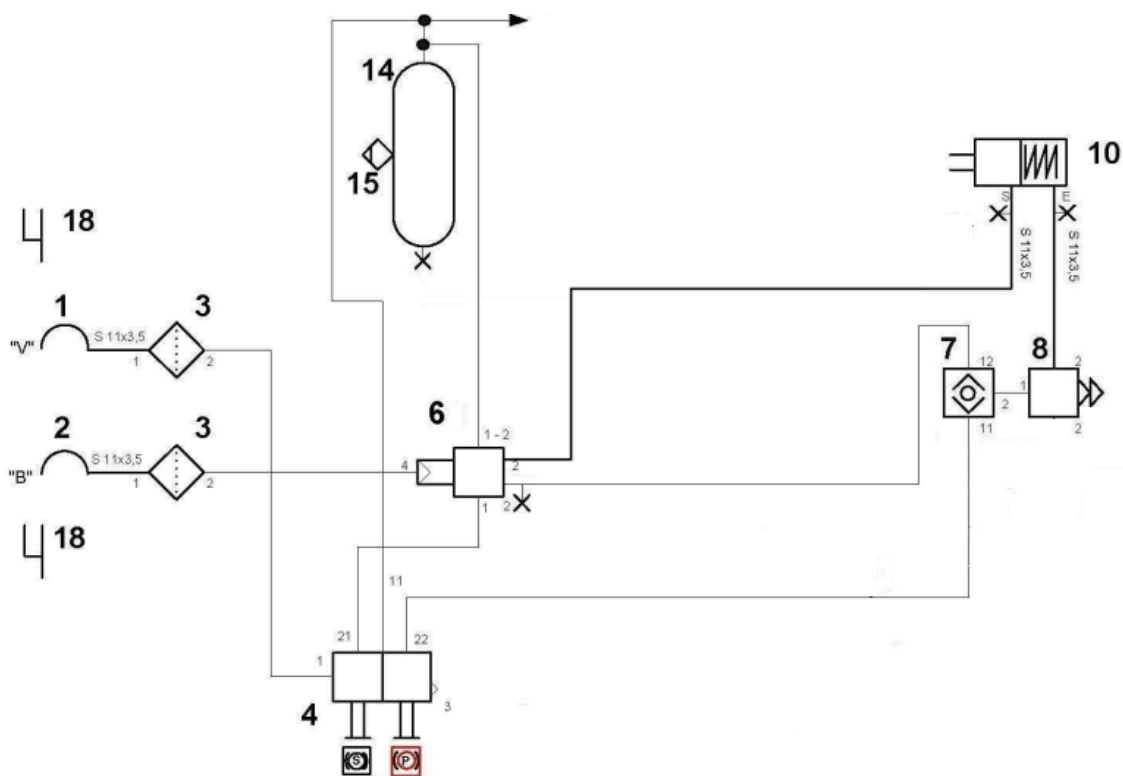
7.4 Complete hydraulic diagram of the machine



7.5 Brake system

- The standard version of the machine includes a single-circuit two-line braking system by KNORR BREMSE
- The actual braking is mediated by spring brake cylinders – the parking brake is implemented inside and its automatic (controlled by the button see below).
- Sufficient air pressure in the system is required to release the parking brake. Always check that the parking brake is released before driving.
- If the machine is equipped with brakes, they must be connected to the tractor when driving.
- When lifting the machine on the axle, always unblock the machine.
- Attention!!! When air leaks from the system, the parking brake is automatically activated and physical release is only possible mechanically, see below.

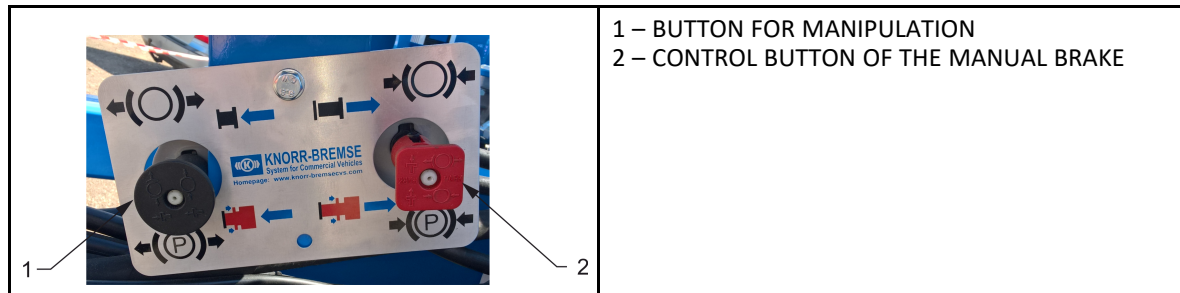
7.5.1 Brake wiring diagram



1.	Quick-coupler – red line	8.	Jettisoning valve
2.	Quick-coupler – yellow line	10.	Combined membrane brake cylinder
3.	Air filter	14.	Air tank 40l
4.	control valve of the manual brake	15.	Drain valve
6.	Brake valve	18.	Quick-coupler holder
7.	Two-way valve		

7.5.2 Hand brake control valve

- The rear axle brakes are equipped with an automatic parking brake, the function of which is described below.
- The parking brake is activated automatically upon disconnecting the red quick coupler from the tractor.



Description of hand brake operation with disconnected air line

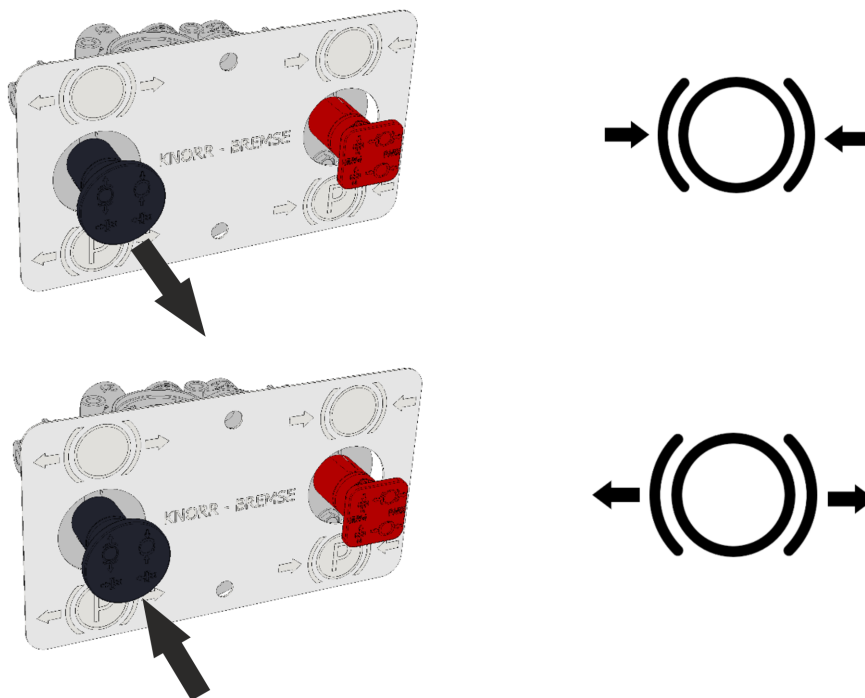
- The parking brake will automatically activate when the air hoses are disconnected
- The black button can be used to release the brake for manoeuvring
- The control is functional only if there is sufficient air in the air reservoir
- After pressurizing the system, it will automatically switch to the driving (extended) position

Black button extracted

- The parking brake is locked

Black button is pressed

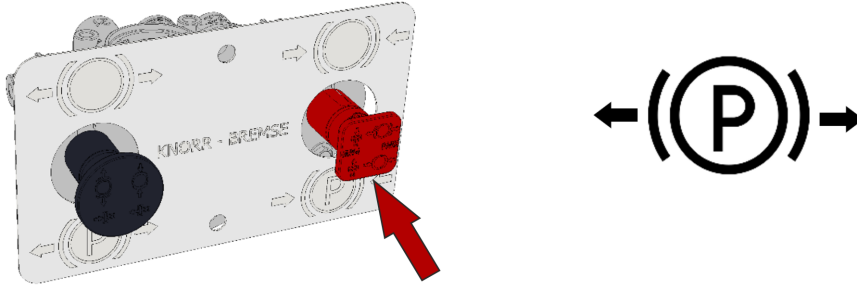
- The parking brake is unlocked
- The brake is released only if there is sufficient air pressure in the air reservoir



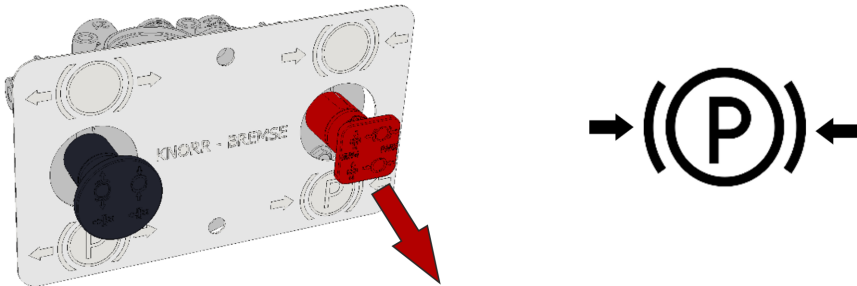
Description of hand brake operation with connected air line

- During driving, the button must always be in the pressed position (it will not automatically switch)
- When disconnecting the machine, there is no need to use it, as the brake will automatically activate upon disconnecting the red quick coupler from the tractor.

RED BUTTON PRESSED = **MANUAL BRAKE IS NOT ACTIVE (THE MACHINE IS RELEASED)**



RED BUTTON EXTRACTED = **MANUAL BRAKE IS ACTIVE (THE MACHINE IS BRAKED)**



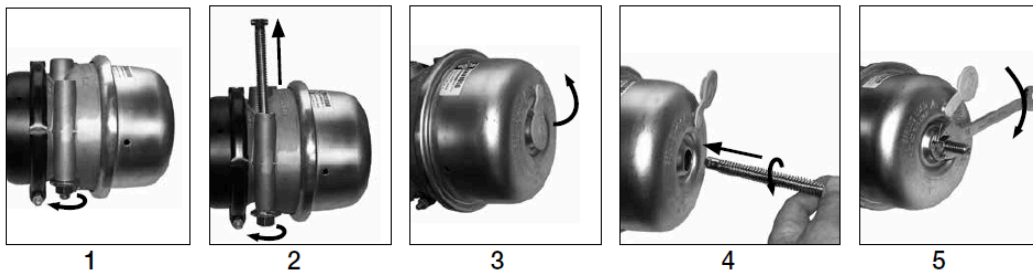
7.5.3 Emergency brake release in case of air leak

- It is possible to release the brakes of the machine using special brake release bolts in case of a leak of air from the brake system.



- The bolts are included in the installation unit of the brake cylinder.

Emergency brake release procedure in case of air leak




- Remove the bolts from the holders of the brake cylinder (Fig. 1 and 2)
- Release the cap on the back side of the brake cylinder (Fig. 3)



- Insert the bolt by its flat end (T-shape) into the opening in the cylinder and turn the bolt by 90° at the end of the opening so that the screw is arrested and cannot be pulled out (Fig.4)
- Turn the nut (19 mm spanner) clockwise (Fig.5). ATTENTION: Maximum torque is limited to 68 Nm.

8 MACHINE ASSEMBLY AT THE CUSTOMER

- 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 „4“.

9 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 1–5. 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.
- When turning the machine at headland, the operator must lift the machine, i.e. the working bodies are not in the ground.
- The operator is obliged to observe the prescribed working depths and speeds stated in the manual in Chap.1 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.

9.1 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 suspension and a functional undamaged hydraulic system.
- The valve on the drawbar piston-rod can be closed when the drawbar height is adjusted. Then, the drawbar height is changed by lifting the transport axle of the machine (yellow circuit).
- The table of requirements for the towing means for work with the machine :

Requirement for the tractor engine power for cultivator TERRIX 450 PS		225 – 350 kW (300 – 450 HP)
Requirement for the tractor engine power for cultivator TERRIX 600 PS		350 – 460 kW (450 – 600 HP)
Requirement for the bottom hitch	Bottom hitch	C 50 C 70 K 80 TPH 3+4
Requirement for the tractor's hydraulic system	Side frame folding circuit	Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
	Depth adjustment circuit	Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
	Axle lifting circuit	Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
	Rear levelling disc circuit	Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5



When connecting, no persons may stay in the space between the tractor and the machine.

HYDRAULIC OIL SPECIFICATIONS
The hydraulic circuit of the machine is filled with oil at the factory:
Performance level: API GL 5; SAE 10W-30; SAE 80 Manufacturer's specification: ALLISON C4; CATERPILLAR TO-4; VOLVO VCE WB 101; 97303 JONH DEERE 20C/20D ZF TE-ML 03E/05F/06E/06F/06K/17E/21F PARKER DENISON HF-0/HF-1/HF-2 New HOLLAND NH 420A/410B MASSEY FERGUSON M1135/M1141/M1143/ M1145 KUBOTA UDT Fluid CASE IH MS-1204/MS-1206/ MS-1207/MS-1209 FORD M2C134D M2C86B/C CNH MAT 3525/ MAT3526 SPERRY VICKERS/EATON M2950S,I-280-S SAUER SUNDSTRAND(DANFOSS) Hydro Static Trans fluid; CASE CNH MAT 3540(CVT), Claas(CVT), AGCO CVT; ML200, Valtra G2-10(XT-60+)

9.2 Folding and unfolding of the machine



- The hydraulics for the folding and unfolding must be connected to the double-action control unit.
- The operator must ensure that during folding and unfolding of the side frames, no person or animal is within their reach (i.e. at the place of their impact) or vicinity.



- Perform folding and unfolding on flat and solid surfaces or laterally to the slope with the fully open control unit.
- Folding and unfolding may only be performed when the machine is lifted on the axle.
- Remove stuck soil from folding points, soil may impair 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.
- When tipping, watch out for collisions between frames, especially front rollers and rollers.
- During tipping, the front folding discs and rollers automatically move to the lowermost position.

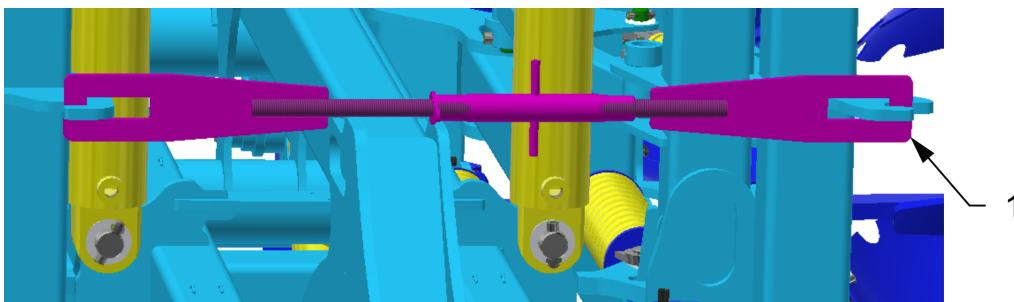
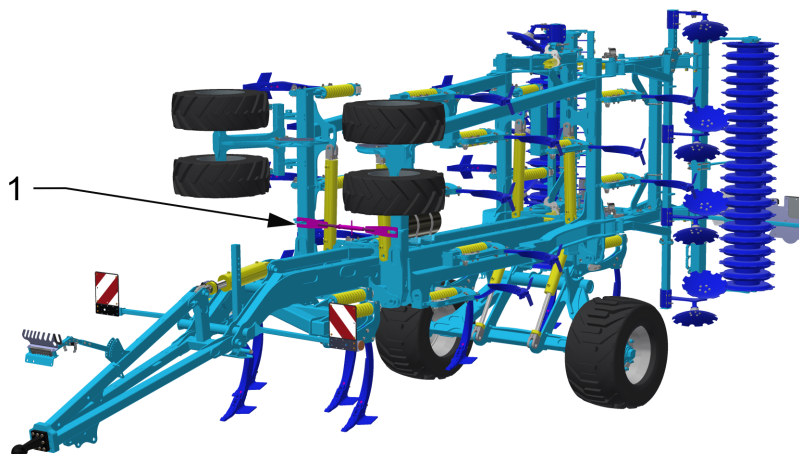


Attention!!! The machine must be lifted on the axle prior to folding and when folded!

10 MACHINE TRANSPORT ON ROADS

Transport position of TERRIX

- ❗ • Connect the machine by attaching it to the tractor .
- Lift the machine on the axle, switch the ball valve of the axle to the closed position.
- Fold the side frames to the transport position, switch the ball valve to the closed position.
- Install the transport rod between the side frames and secure it with the safety pin, see the picture.
- Tighten the English nut on the rod and secure the position with the locknut.
- The machine must be equipped with removable shields with marking of contours, functional lighting, and the board of the rear marking for slow vehicles (according to ECE No. 69).
- The lighting must be activated during travelling on roads.
- The tractor must be equipped with a special light device of an orange colour, which must be activated during travelling on roads.
- The maximum transport speed during travelling on roads is **30 kph (18,6 mph)**.



1 – Connecting rod

Transportation is only permitted when the connecting rod has been properly installed and secured!

**Ban of transport with decreased visibility!**

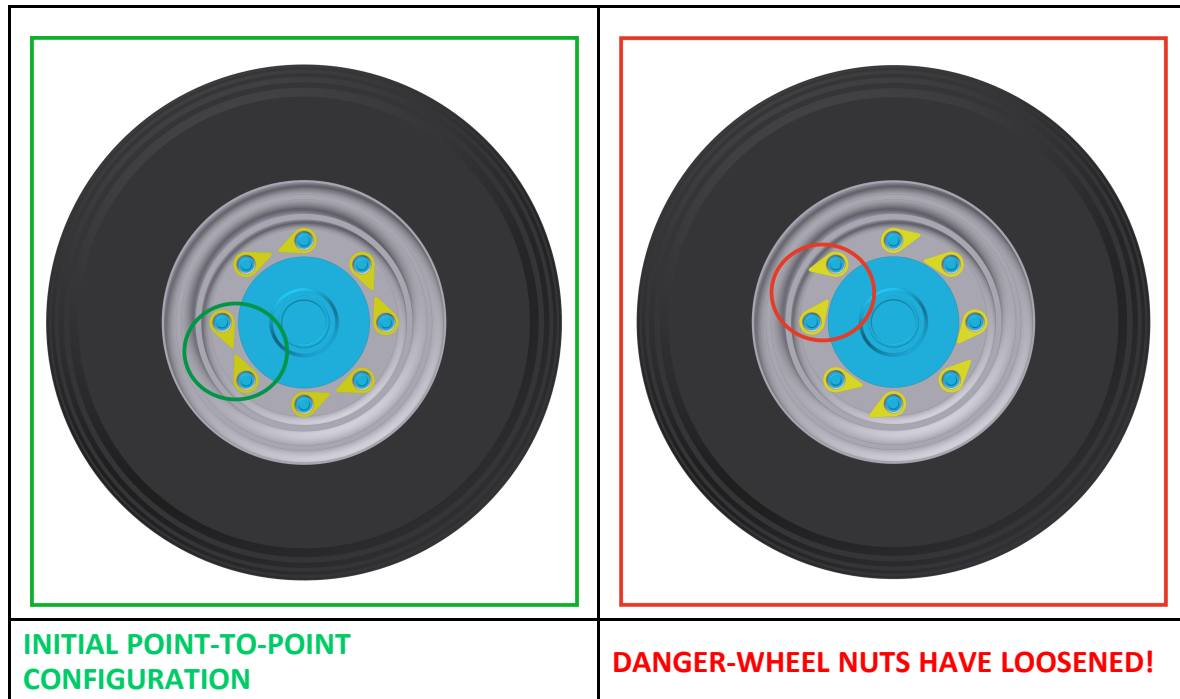
- Bring the machine into the transport position position.
- The operator is obliged to pay increased attention during transport on roads, due to the transport dimensions of the machine.
- The operator must observe the valid regulations for transport on roads (laws, decrees) after connecting the machine 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.
- The operator must fold the side frames for transport and secure them against unwanted unfolding by disconnecting the hydraulic circuit of the machine and the tractor.
- 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.

Checking the nuts on the transport axle

- Use the plastic arrow “Check Point” to check for loose nuts. It promptly shows the condition of the nuts, whether they are loose or not.
- Always check the Check Points before driving.
- When the arrows are not facing one another, the nuts have to be tightened to the required torque and the Check Point arrows have to point against one another as shown in the green picture.

Torque for the axle nuts:

- M18x1,5 - 265 Nm
- M20x1,5 - 343 Nm
- M22x1,5 - 440 Nm



10.1 Sharp machine projections



- The machine contains sharp structural projections
- **It is prohibited to operate and transport the machine on roads when visibility is reduced!!** - Persons or objects, or other road traffic participants could get caught.
- **The machine operator must be extra cautious when driving on roads and consider the width of the machine and safe distance from persons, vehicles and objects, or other road traffic participants!!**

Fig. 3 - Tine machines

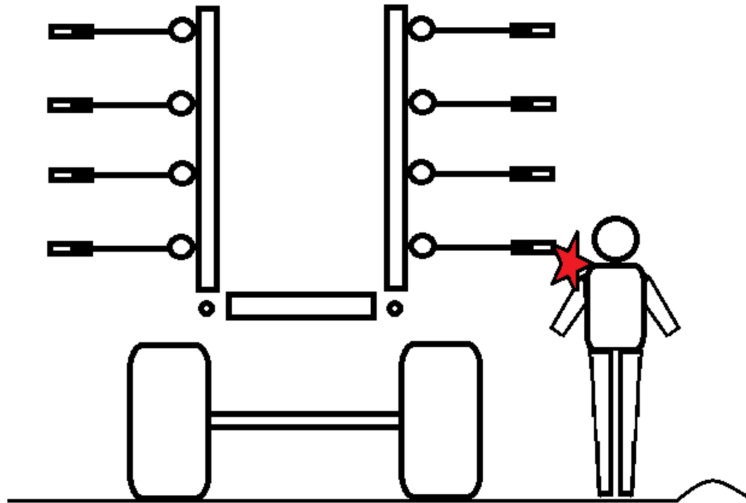
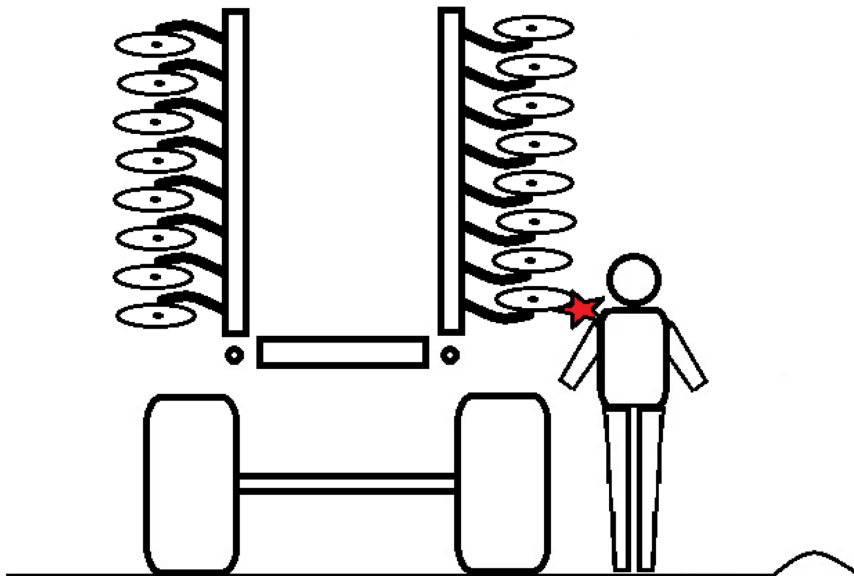
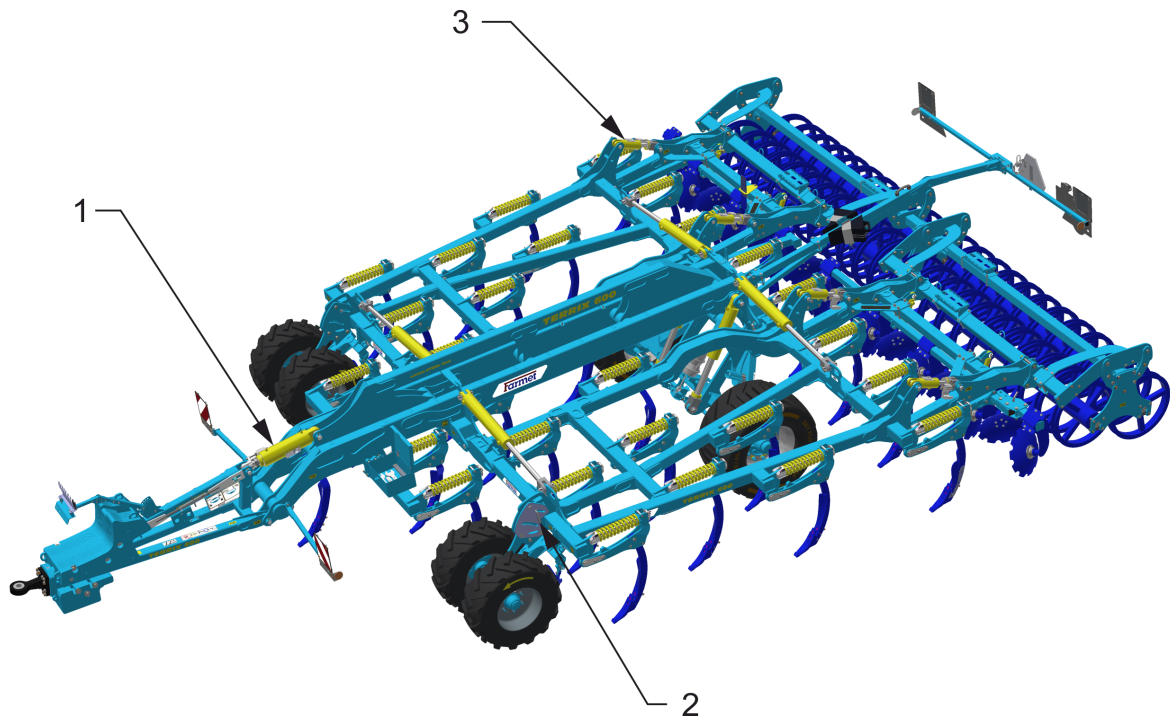


Fig. 4 - Disc machines



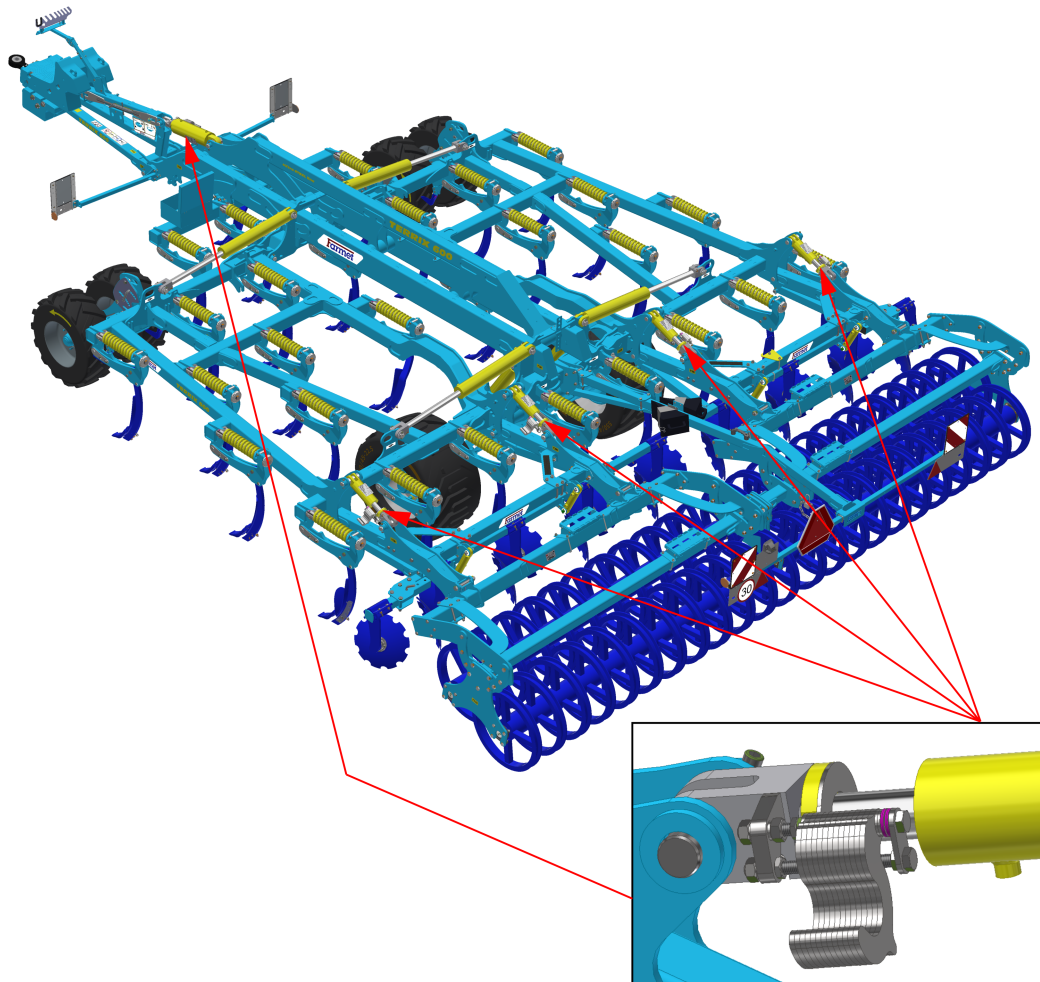
11 MACHINE ADJUSTMENT



- 1 – Adjusting depth of the drawbar
- 2 – Adjusting depth of the tracing wheels
- 3 – Adjusting depth of the rollers

12 SETTING THE WORKING DEPTH

The working depth of the machine must be set in such a way as to avoid frequent release of the plough spring lock. The spring lock should only be released very occasionally. A maximum of one coulter on the entire machine may be released after 100 - 200 m of travel. If loosening is more frequent, it is necessary to reduce the loosening depth or use narrow chisels. Frequent release of the spring lock can result in excessive wear of the pins and other parts of the spring lock. In this case, more frequent replacement is necessary.



Chisel section depth adjustment

- The working depth of the chisels is set by adjusting the machine frame height above the ground
- In the front of the machine, the depth is set on the drawbar and on the tracing wheels
- In the rear of the machine, the depth is set on the supporting roller
- The machine frame must be parallel to the ground
- The adjustment is done by changing the number of the space washers on the piston-rods
- The position number of the copy wheels corresponds to the number of washers on the piston rod

The number of the space washers must be the same on all piston-rods!!!

Table for setting the working depth of the rollers and tracing wheels

Number of washers - rollers Position of the copy wheels	Working depth H (cm)
0	35
1	33
2	31
3	29
4	27
5	25
6	24
7	22
8	20
9	18
10	16
11	14
12	12
13	10

Adjustment according to the tractor hitch

- The setting is similar to that of the piston rods of the cylinders
- The number of space washers on the drawbar piston-rod must be adjusted according to the height of the tractor hitch above the ground
- The number of space washers must be increased by the number provided in the following table

The number of space washers on the piston-rods of rollers, tracing wheels and the drawbar must be set at the same depth!!

The drawbars must not lift the tractor during work.

Table for setting the working depth and height of the drawbar hitch

Setting the space washers on the drawbar piston-rod				
Number of washers	Hitch height (cm)		Number of washers	Depth adjustment H (cm)
0	60	+	0	35
1	58		1	33
2	55		2	30
3	53		3	28
4	50		4	25
			5	23
			6	20
			7	18
			8	15
			9	13
			10	10

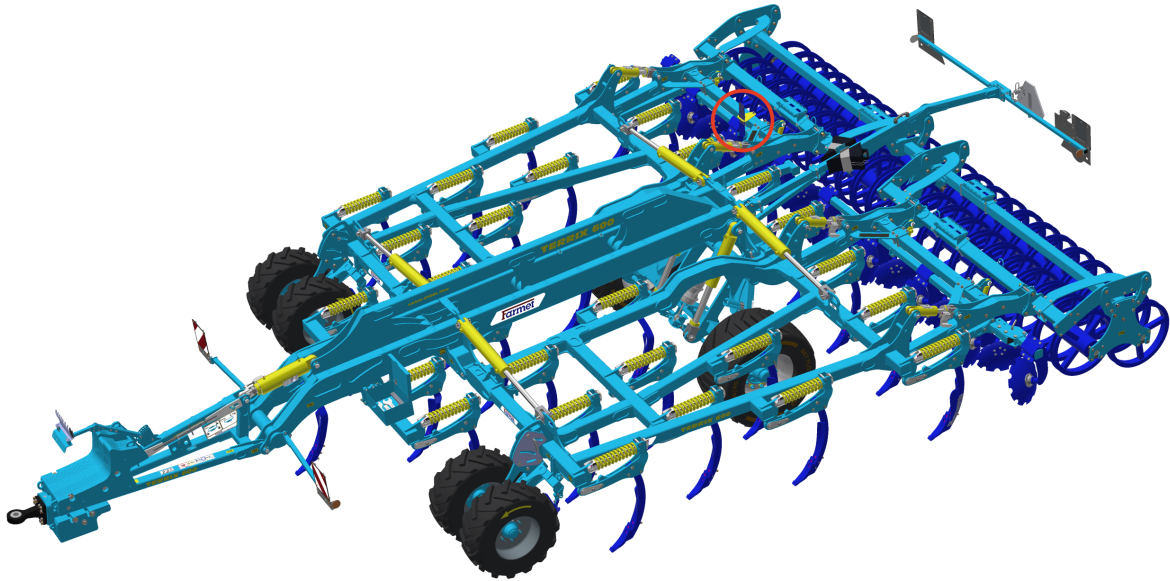
h [cm / in]					
4		50 / 19,7	10		10 / 3,9
3		52,5 / 20,7	9		12,5 / 4,9
2		55 / 21,7	8		15 / 5,9
1		57,5 / 22,6	7		17,5 / 6,9
0		60 / 23,6	6		20 / 7,9
			5		22,5 / 8,9
			4		25 / 9,8
			3		27,5 / 10,8
			2		30 / 11,8
			1		32,5 / 12,8
			0		35 / 13,8
					[cm / in]

13 ADJUSTMENT OF THE LEVELLING DISCS

Adjust the working depth of the levelling discs using the hydraulic **BLUE** circuit. Be cautious while adjusting.

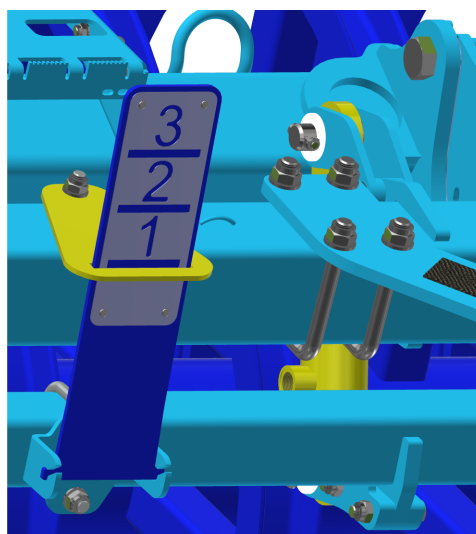
Properly set discs will ensure perfect levelling and covering with fine soil across the entire working width. With shallow disc penetration, furrows remain behind the rear blades; with deep penetration, clumps of soil form behind the machine. Check the correct setting of the discs during operation – settings may vary depending on soil conditions and disc wear.

The height adjustment of levelling discs can be monitored on separate indicator located on the machine, as shown in the figure.



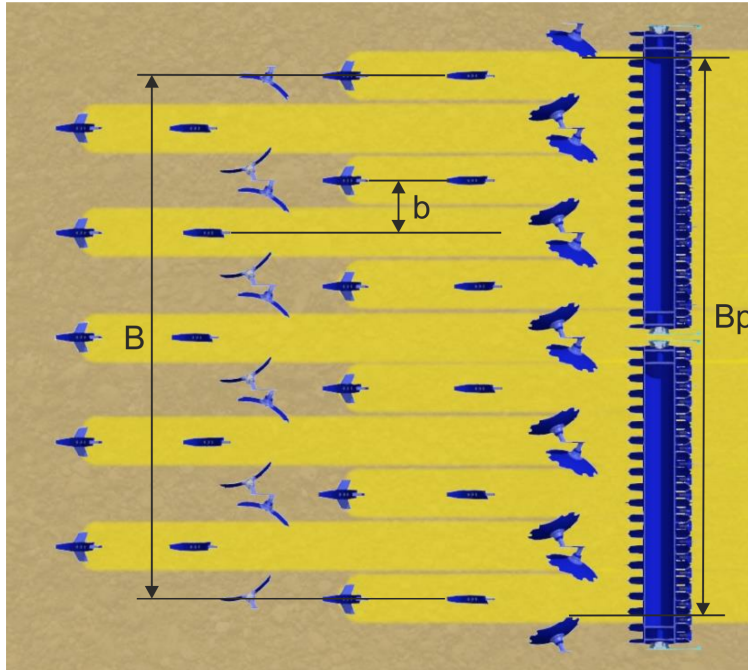
13.1 Rear discs - blue hydraulic circuit

- Behind the fourth row of chisels
- The working depth changes with the position of the support roller
- 1 – low working depth, 3 – high working depth



14 WORKING WIDTH OF THE MACHINE

- This is the theoretical working width
- In practice or on slopes, it may be necessary to reduce the working width to ensure sufficient overlap



B – edge tine distance
 b – share spacing
 Bp – working width


TRX 450 PS
 Working width Bp = 4,73 m

TRX 600 PS
 Working width Bp = 5,98 m

15 MACHINE MAINTENANCE AND REPAIRS




Observe the safety instructions for treatment and maintenance.

- If it is necessary to weld during the repair and have the machine connected to the tractor, it must have disconnected supply cables from the alternator and the accumulator.
- Check the tightening of all screw and other assembly connections at the machine before every use of the machine, furthermore continuously as needed.
- Continuously check the wear of the working bodies of the machine, possibly replace these worn working bodies with new ones.
- Adjustment, cleaning, and lubrication of the machine may only be performed with the machine at rest (i.e. the machine is standing and not working).
- When working on a lifted machine, use suitable support equipment supported at marked points or at points suitable for that.
- During adjustment, cleaning, maintenance, and repair of the machine, you must secure those parts of the machine that could endanger the operator by falling or another movement.
- For catching the machine during handling using lifting equipment, use only the places marked with self-adhesive labels with the chain sign "  ".
- Upon a failure or damage of the machine, immediately turn off the tractor's engine and secure against restarting, secure the machine against movement — only then you can remove the failure
- During repairs of the machine, use exclusively the genuine spare parts, suitable tools and protective equipment.
- Regularly check the prescribed pressure in the machine tyres and the condition of the tyres. Perform possible repairs of the tyres in an expert workshop.
- Keep the machine clean.

15.1 Maintenance plan

MAINTENANCE PLAN					
Perform the planned maintenance according to the instructions:					
Maintenance Task	Daily (season)	Once a week	Before season	After season	Time interval
Machine in general					
<ul style="list-style-type: none"> • Visual inspection of the machine • Checking for any undesirable sounds, vibrations and excessive wear 	X				
<ul style="list-style-type: none"> • Checking crucial nodes: pins, bearings, rollers, working parts 	X		X	X	
<ul style="list-style-type: none"> • Machine cleaning • Storing the machine under roof, if possible • Recording the mileage of the machine/ season (ha) 		X		X	
<ul style="list-style-type: none"> • Comprehensive inspection • Checking the frame 	X			X	
	Do not use a high-pressure cleaner or direct stream of water to clean the hydraulic rollers, bearings, electric and electronic parts. The seals and bearings are not waterproof at high pressure.				
Hydraulic system					
Checking the function, tightness, mounting and worn spots of all hydraulic parts and hoses		X	X		
Hydraulic hoses – replacement: <ul style="list-style-type: none"> • Damaged external casing of the hose (mechanically or blistered) • Fluid seepage (especially the end piece) • Bumps or blisters on the hose • Deformed or corroded end piece • Loose end piece – the hose spins 	X			X	
Hydraulic hoses - replacement: <ul style="list-style-type: none"> • Expired service life of the hose 					6 years
<p>!!!PREVENTION means removing the problem according to the plan, outside the season, without stress and comfortably before a secondary problem, an accident or a health hazard arises.</p>					

MAINTENANCE PLAN					
Perform the planned maintenance according to the instructions:					
Maintenance Task	Daily (season)	Once a week	Before season	After season	Time interval
Bolt connections					
Visual inspection of bolt and hydraulic joints, tighten any loose joints using a corresponding torque (see the torque chart)	X			X	
Towing lug – check, tighten if needed M 16 – 10.9. – 300 Nm M 20 – 10.9. – 560 Nm 		X	X		
Wheels – tighten all wheel nuts <ul style="list-style-type: none"> First time: after 10 hours of operation Wheel replacement : after 10 hours of operation M 18 x 1,5 – 300 Nm M 20 x 1,5 – 400 Nm M 22 x 1,5 – 500 Nm		X	X		
Brake system					
Brake line and hoses – check the function, tightness, mounting and clamping, or breaking	X		X	X	
Brake components – check the function, tightness, mounting	X		X	X	
Air nozzle – drain using the draining valve		X		X	
Draining valve – check the function, clean and replace sealing			X	X	
Pipe filter – clean			X	X	
Brake/parking brake – check the function, escapement setting 25-45mm	X				
Brake lining – check the condition of the brake lining, min. thickness of 3mm				X	
Wheels/axle					
Checking the tyre pressure	X			X	
Transport axle TRX 450 PS and TRX 600 PS – 550/45 –22,5 , pressure 480 KPa				X	
Transport axle bearings – check and adjust allowance if needed (in the workshop)				X	

MAINTENANCE PLAN					
Perform the planned maintenance according to the instructions:					
Maintenance Task	Daily (season)	Once a week	Before season	After season	Time interval
Electric cables					
Check for any damage, replace if needed		X	X		
Safety measures					
Lighting and safety hatched boards – check the condition, function and cleanliness	X		X		
Hazard and safety labels – check that they are installed and legible		X			
Machine lubrication plan					
Drawbar joint / lifting loop – grease	X			X	
Handbrake bolt – grease or suitable oil	X			X	
Axle bearings – grease with Lithium content – check, refill if needed				X	
After season					
Entire machine					
<ul style="list-style-type: none"> • Treat and clean the machine; do not spray oil or similar agents on the plastic parts • Spray the piston-rods of the hydraulic cylinders with suitable anti-corrosion agents • Check the tightness of all bolt and plug-in connections (see the torque chart) • Check for any damage of the electric cables and replace if needed 					
Brake system					
<ul style="list-style-type: none"> • Preserve the anti-freeze fluid for air-brake systems (about 0.1 l), ethanol-free, before the last ride, use fluid recommended by the tractor manufacturer. • Secure the machine against movement by Scotch blocks. • Release the parking brake, release air from the air nozzle and close the brake lines. The service brake must be released during winter so that it does not get stuck on the brake drum. 					
Points of lubrication					
<ul style="list-style-type: none"> • Grease the points of lubrication according to the lubrication plan, use grease KP2P-20 Likx, under DIN 51 502 					
<p>!!! PREVENTION means removing the problem according to the plan, outside the season, without stress and comfortably before a secondary problem, an accident or a health hazard arises.</p>					

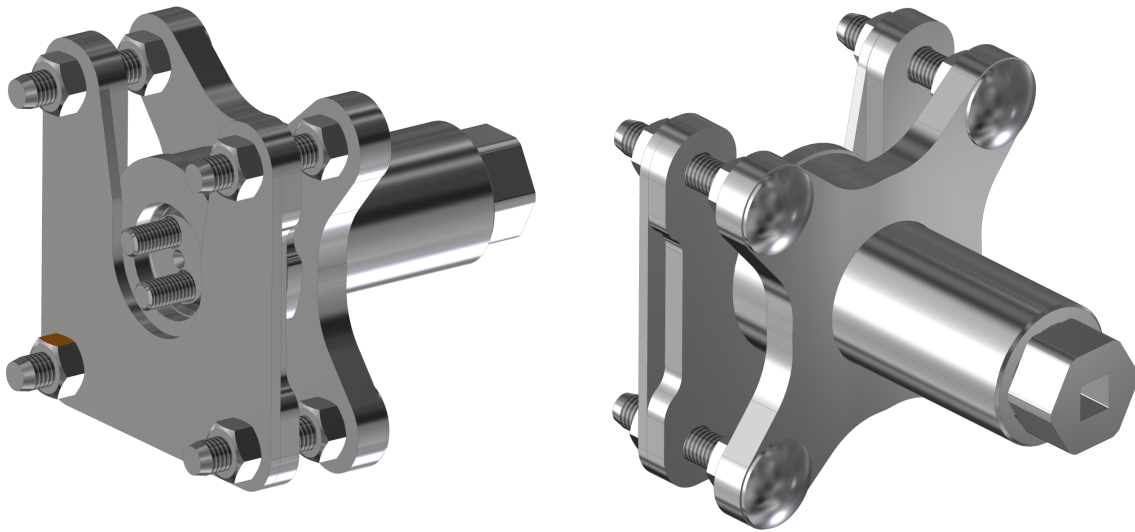
15.2 Replacement of the working roller bearings

- Always follow the safety regulations and directives when replacing the bearings of rollers.
- The machine must be aggregated with the tractor according to Chapter “8.1” 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.

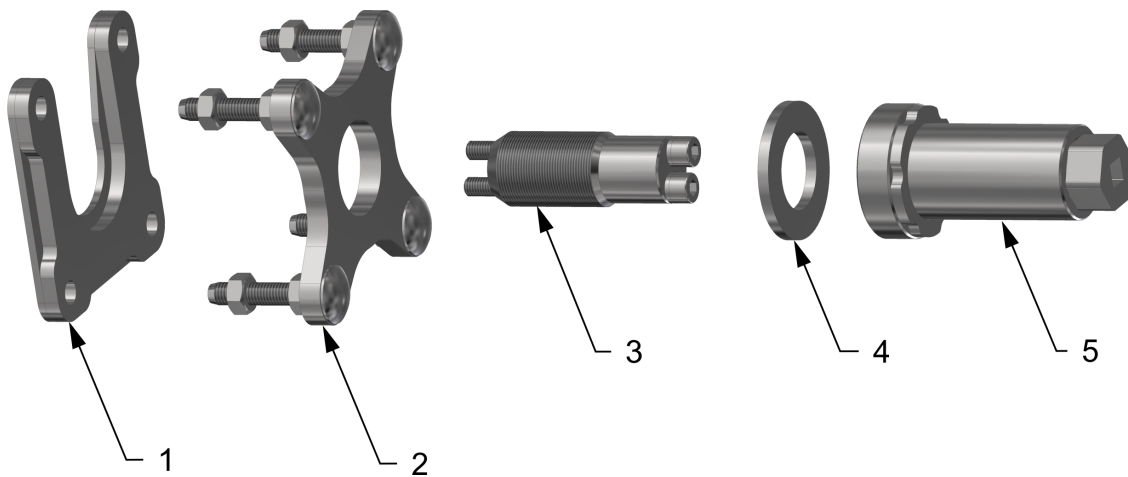
<p>1 – Roller bearing</p>	<p>1 – Bolt 2 – Spacers 3 – Pin cylinder $\varnothing D$ – 40 mm – Bolt M10 (50 Nm) / M8 (20 Nm) $\varnothing D$ – 45 mm – Bolt M12 (86 Nm) / M10 (20 Nm) $\varnothing D$ – 50 mm – Bolt M12 (86 Nm) / M10 (20 Nm) $\varnothing D$ – 60 mm – Bolt M12 (86 Nm) / M10 (20 Nm)</p>

15.2.1 Using the tool for bearing disassembly and assembly

- The location of the equipment on the machine can be found in the spare parts catalogue.



Tool parts

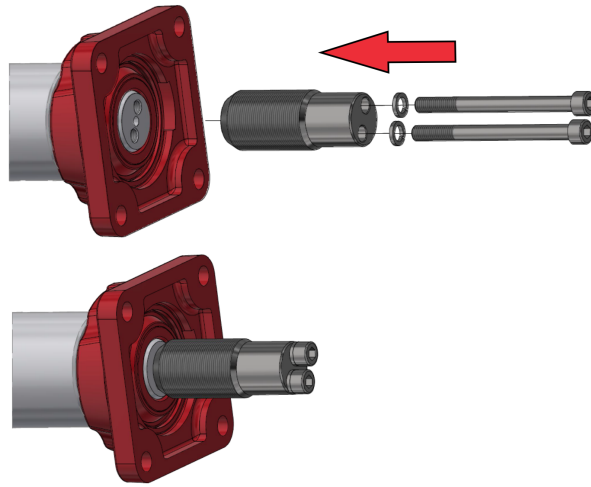


- 1 – Part for disassembling the bearing ring
- 2 – Part for disassembling the bearing or bearing ring
- 3 – Tool pin + bolts
- 4 – Liner
- 5 – Tool body

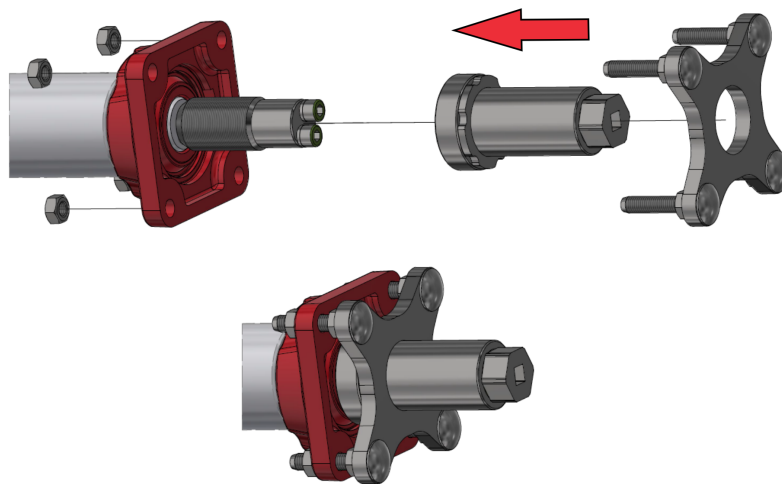
15.2.1.1 Complete bearing disassembly

- Procedure:

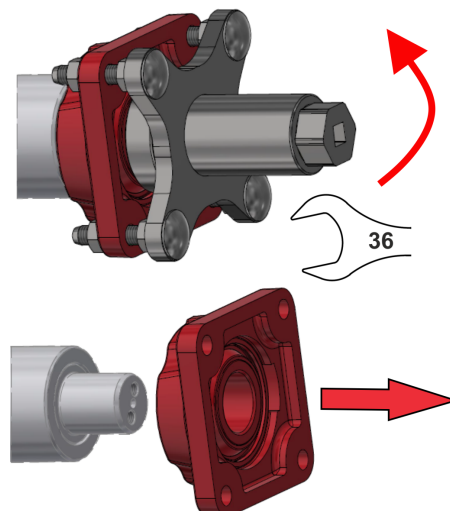
1. Mount and screw the tool pin onto the cylinder pin



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



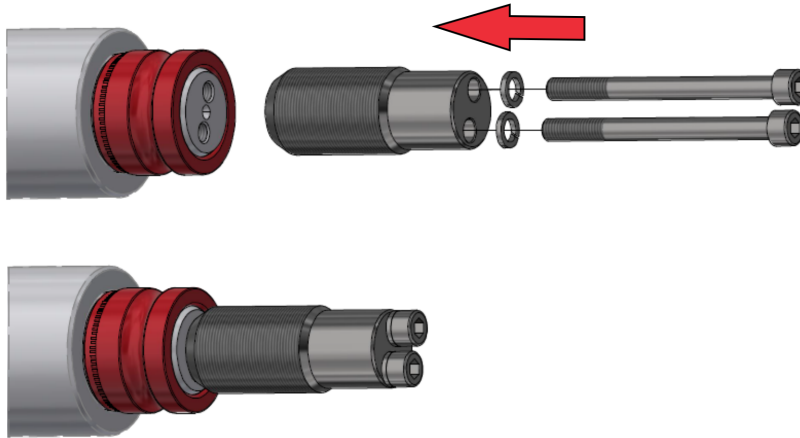
3. Disassemble the bearing by screwing the tool body using spanner size 36



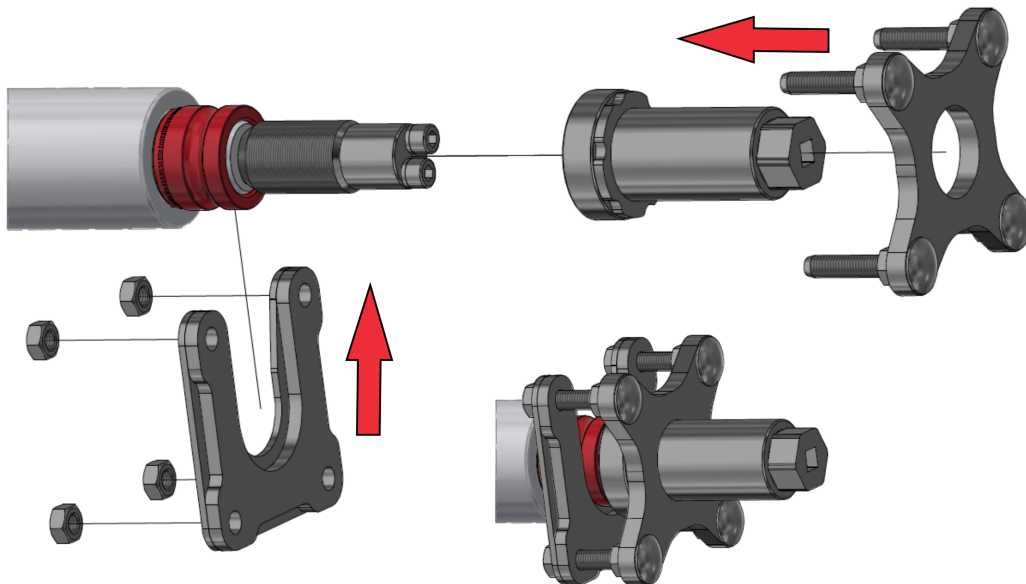
15.2.1.2 Disassembly of the ring

- Procedure:

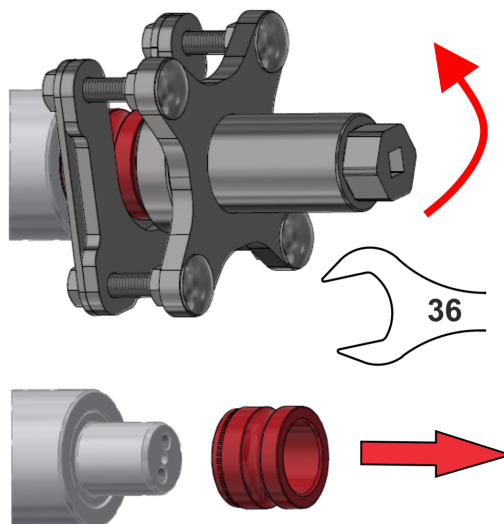
1. Mount and screw the tool pin onto the cylinder pin



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



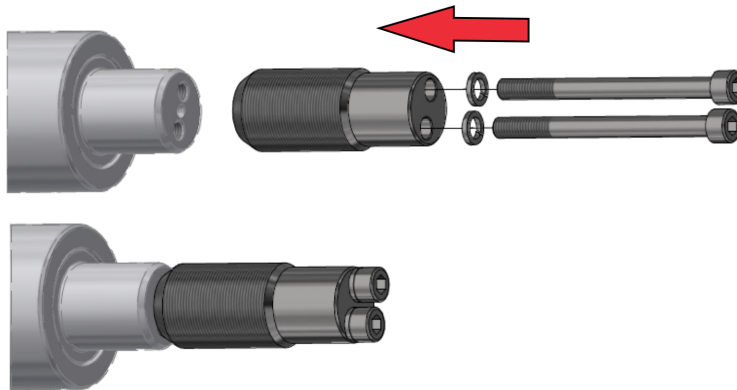
3. Disassemble the ring by screwing the tool body using spanner size 36



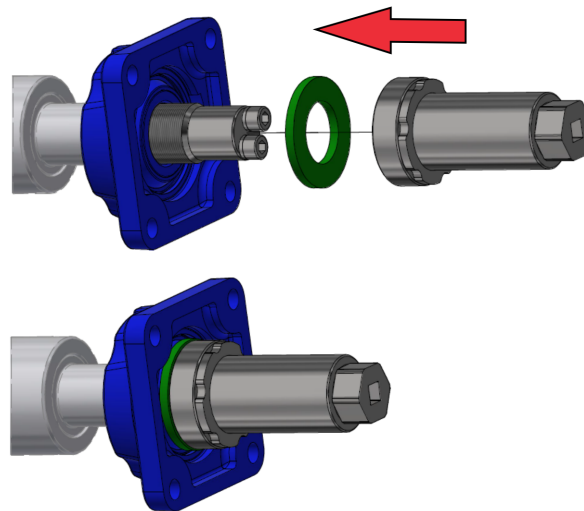
15.2.1.3 Assembling bearings onto pins

• Procedure:

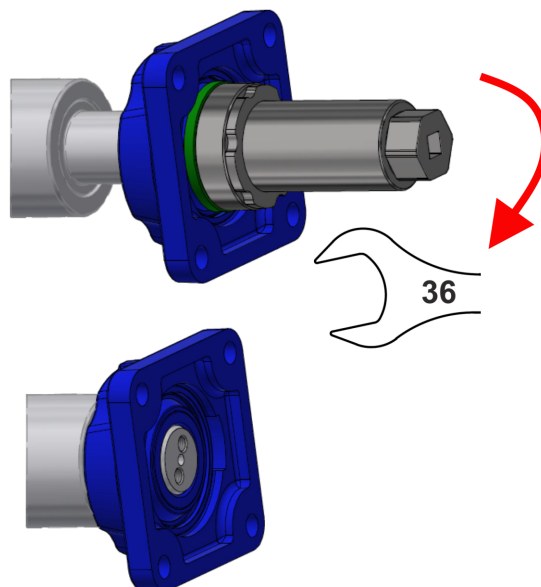
1. Mount and screw the tool pin onto the cylinder pin



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



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



15.2.2 Using spacers

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

<p>1 – Spacers</p>	<p>1 – Side plates 2 – Spacers 3 – House bearing 4 – Pin cylinder 5 – Bolt Parameter "X" = is there a gap? YES = Use spacers NO = Do not use spacers</p>

16 MACHINE STORAGE

Long-term machine shutdown :

- Store the machine under a roof if possible.
- Store the machine on a flat and solid surface with sufficient load capacity.
- Clean the machine before storing and conserve so that it is not damaged in any way during storage. Pay special attention to all marked lubrication points and properly lubricate them according to the lubrication plan.
- Store the machine in the position with folded frames in the transport position. Store the machine on the axle and the storage leg, secure the machine against spontaneous movement using scotches or another suitable tool.
- When storing, lower the machine into the lower position using hydraulics.
- The machine must not rest on the working parts. It could damage the working parts of the machine.
- Secure the machine against access of unauthorised persons.

17 MACHINE LUBRICATION SCHEDULE

- The machine is completely maintenance free when it comes to lubrication. Therefore, it is not necessary to lubricate the machine.

18 ENVIROMENTAL PROTECTION

- Regularly check the tightness of the hydraulic system.
- Preventively replace or repair hydraulic hoses, possibly further parts of the hydraulic system showing signs of damage before oil leaks occur.
- Check the condition of hydraulic hoses and perform their timely replacement. The service life of hydraulic hoses includes the time when they were stored.
- Handle oils and greases according to valid waste laws and regulations.

19 MACHINE DISPOSAL AFTER SERVICE LIFE EXPIRY

- 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.

20 SERVICING AND WARRANTY CONDITIONS

20.1 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.

20.2 Warranty



- 1.** The manufacturer provides a basic warranty for the product for a period of 12 months. In the case of immediate registration of the sale to the end customer, including their valid contact details, the end customer receives an extended warranty of 36 months. The warranty is provided from the date the product is handed over to the end user (buyer). The registration must be completed by the seller (sales representative) on the My Farmet online portal. Upon correct registration, the end user will gain access to the My Farmet portal and all the benefits of the extended warranty.
- 2.** The warranty covers hidden defects that manifest during the warranty period under proper use of the machine and in compliance with the conditions specified in the Operating Manual.
- 3.** The warranty does not cover consumable spare parts, i.e., normal mechanical wear and tear of replaceable working parts (shares, discs, harrow tines, roller bearings, etc.).
- 4.** The warranty is tied to the machine and does not terminate with a change of ownership. The extended warranty is conditional upon registering the new owner's contact details in the My Farmet portal.
- 5.** The warranty is limited to disassembly and assembly, replacement, or repair of the defective part. The decision on whether the defective part will be replaced or repaired lies with the manufacturer, Farmet.
- 6.** During the warranty period, repairs or other interventions on the machine may only be carried out by an authorized service technician of the manufacturer. Otherwise, the warranty will not be recognized. This provision does not apply to the replacement of consumable spare parts (see point 3).
- 7.** The warranty is conditional upon the use of original spare parts supplied by the manufacturer.

2019/005/02

(CZ) ES PROHLÁŠENÍ O SHODĚ
 (GB) CE CERTIFICATE OF CONFORMITY
 (D) EG-KONFORMITÄTSEKTLÄRUNG
 (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.**
 Jiřínková 276
 552 03 Česká Skalice
 Czech Republic
 DIČ: CZ46504931
 Phone: +420 491 450 111

(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 : **Dlátový kypřič**
 (GB) Machine: - name : **Chisel cultivator**
 (D) Fabrikat: - Bezeichnung : **Meißelgrubber**
 (F) Machinerie: - dénomination : **Cultivateur à siceaux**
 (RU) Сельскохозяйственная машина: - наименование : **Чизельный культиватор**
 (PL) Urządzenie maszynowe: - nazwa : **Spulchniarka dłutowa**
- typ, type : **TERRIX**
 - model, modèle : **TERRIX 450 PS | TERRIX 600 PS**
 - PIN/VIN :
- (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) Normы, 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 date: 02.01.2024
 (D) Bewilligen (F) Approuvé
 (RU) Утвердил (PL) Uchwalif

Ing. Petr Lukášek
 Technical director

date: 02.01.2024

Ing. Tomáš Smola
 Director of the Agricultural Technology Division