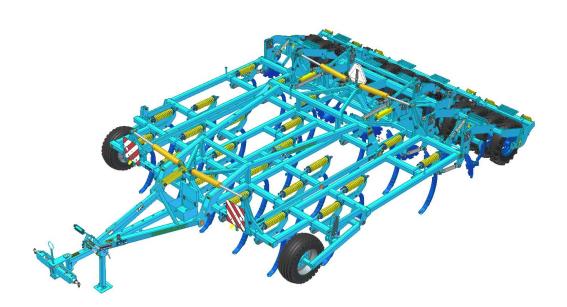


OPERATING MANUAL TURBULENT 3 TURBULENT 5 TURBULENT 6



Edition: 9 | effective from: 1. 4. 2014



Dear customer,

Semi-carried cultivators **TURBULENT** are quality products of Farmet a.s. Ceska 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 Table 1). 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 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 Chisel Cultivator

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

Production label of the machine **TURBULENT3**



Production label of the machine **TURBULENT 5**



Production label of the machine **TURBULENT** 6



Table 1 - Your Machine Characteristics

MACHINE TYPE			
MACHINE SERIAL NUMBER			
SPECIAL DESIGN OR ACCESSORIES			



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MACHINE LIMIT PARAMETERS

- (x) The machine is designed for soil cultivation up to a depth of 35 cm when agricultural soil cultivation. Another type of use exceeding the determined purpose is considered as disallowed.
- (x) Machine operation is performed by the tractor operator.
- (x) Machine operator must not use the machine in a different way, especially:
 - (x) Transport of persons on the machine structure
 - (x) Transport of burdens on the machine structure
 - (x) Aggregation of the machine with another towing equipment than stated in Chapter "3.1./p. 11".

TECHNICAL PARAMETERS

Table 2 - Cultivator Technical Parameters

PARA	METRY	TURBULENT	3	TURBU	LENT 5	TURBUL	ENT 6
Working width (r	nm)	3 000		4 8	300	5 700)
Transport width (mm)			2 98	0		
Transport height	(mm)	2 140		3 (030	3 150)
Machine total leng	gth (mm)			8 74	0		
Working depth (m	nm)	60 – 350					
Number of skives		15		2	23	27	
Working perform	ance (ha/h)	2,4-3,6		3,8	-5,7	4,5-6,8	
Towing means (kV	V)	120-180*		180-	220*	220-340*	
Working speed (kg	ph)			8 – 1	2		
Maximum transpo	ort speed (kph)	20		25		25	
Maximum slope g	rade (°)		6				
Tyre dimensions - transport	Tyre pressure (kPa)	7,5-16 8PR	325	7,5-16 8PR	PU foam filled	10,0/75-15,3 14PR	PU foam filled
Tyre dimensions - additional	Tyre pressure (kPa)		-10 4PR			200	
Tyre dimensions - copying	Tyre pressure (kPa)	10.0/75-15	10.0/75-15.3 14PR		550	10,0/75-15,3 14PR 6,5/80-15 8PA	
Machine weight (k	rg)	3 740		6 1	100	7 030	

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

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.

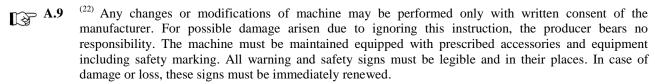


A. GENERAL INSTRUCTIONS FOR USE

- **A.1** (x) 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** (xx) 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** (7) Machine operation may be performed by a person authorised by the operator under these conditions:
 - (8) It must own a valid driver's licence of the corresponding category,
 - (9) It must be demonstrably familiarised with the safety regulations for work with the machine and must practically master the machine operation,
 - (10) The machine may not be operated by juveniles.
 - (11) 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** (12) Maintenance and servicing repairs on the machine may only be performed by a person:
 - (13) Authorised by the operator,
 - (14) Educated in the machinery field with knowledge of repairs of similar machines,
 - (15) Demonstrably familiarised with safety regulations for work with the machine,
 - (16) During a repair of a machine connected to a tractor, it must own a driver's licence of the corresponding category.
- **A.5** (17) Machine operator must secure the safety of other persons when working with the machine or transporting the machine.
- **A.6** (18) 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** (19) The operator may enter the machine structure only with the machine at rest and blocked against movement, namely only for these reasons:
 - (20) Adjustment of the machine working parts,
 - (21) Repair and maintenance of the machine,
 - (29) Release and securing of spherical valves of the axle,
 - (27) Securing of spherical valves of the axle before folding the side frames,
 - (28) Adjustment of the working parts of the machine after unfolding the side frames.



.8 (xxx) 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.



A.10 (23) The operator must have the Operating Manual with the work safety requirements available at any time when working with the machine.



A.11 (24) 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** (1) 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** (2) The dimensions of the transported machine including the transport means must comply with the valid regulations for road traffic (decrees, laws).



- **B.3** (3) The transported machine must be always fastened to the transport means so that its spontaneous loosening could not happen.
- **B.4** (4) The carrier is responsible for damage caused by the loosening of incorrectly or insufficiently fastened machine to the transport means.

C. MACHINE HANDLING USING LIFTING EQUIPMENT

C.1 (1) 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 (2) 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** (3) After fastening (suspending) at designated points, it is forbidden to move in the space of possible reach of the handled machine.

D. WORK SAFETY LABELS

Warning safety labels serve for operator protection.

General:

- A) Strictly observe the warning safety labels.
- B) All safety instructions also apply to other users.
- C) 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 precise meaning of work safety labels on the machine is determined in the following tables (Tab. 3/p. 6-7) and in the figure (Fig. 1/p. 8).

Table 3 – Self-adhesive warning safety labels located on the cultivator

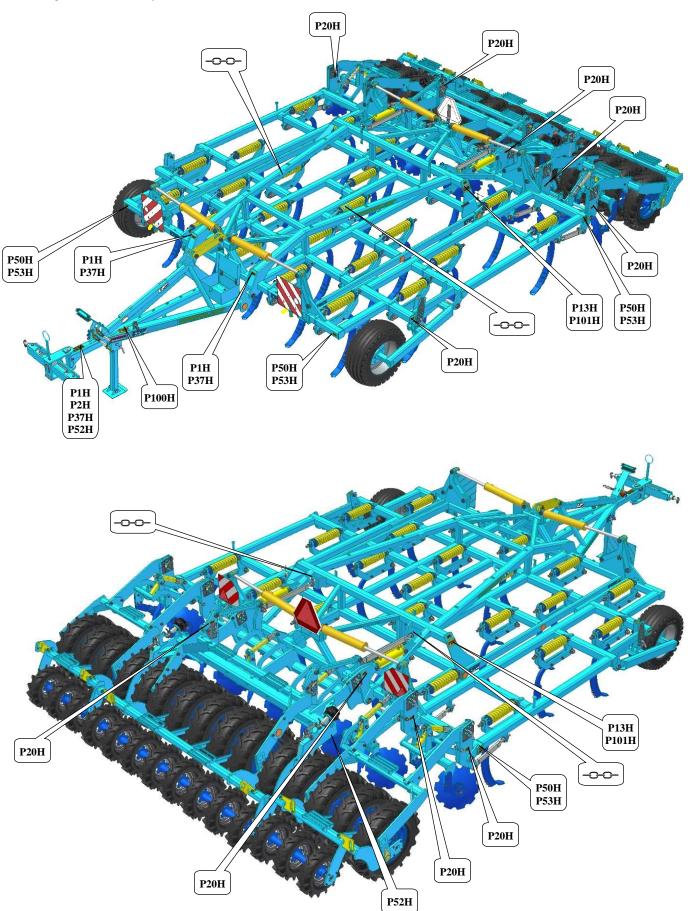
WARNING SAFETY LABEL	LABEL TEXT	MACHINE POSITION
	Before handling the machine, carefully read the operating manual. Observe the instructions and safety regulations for machine operation during use.	P 1 H
P 37 H	Travelling and transport on the machine structure is strictly forbidden.	P 37 H
P2H	When connecting 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 2 H



P 50 H	When folding and unfolding the side frames, stay outside their reach.	P 50 H
A POW	Stay outside the reach of the tractor - agricultural machine set, if the tractor engine is in operation.	P 6 H
P 20 H	When folding the side frames, do not reach into the space of the machine folding joints.	P 20 H
P 13H (2)	Before commencing the machine transport, secure the axle with spherical valves against unexpected drop.	P 13 H
P 52 H	Secure the machine against unwanted movement by positioning on its working bodies (shares).	P 52 H
P53H 1	Do not approach the rotary parts of the machine, if these are not at rest, i.e. they do not turn.	P 53 H
	The shown positions of the lever and the function of the hydraulic spherical valve located on the piston rod.	P 101 H
P 300 H	It is strictly folding and unfolding the side frames on slopes or inclined surfaces.	P 100 H



Fig. 1 - Location of safety labels on the TURBULENT machine



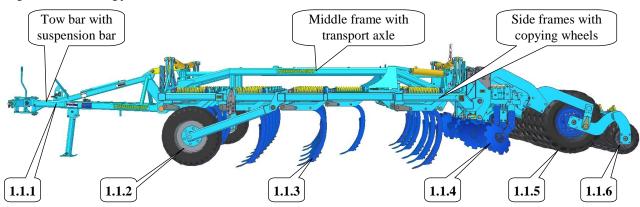


1. DESCRIPTION:

The *TURBULENT 3* machine is designed as semi-carried, the *TURBULENT 5; 6* machine is designed as folding semi-carried. The basic design consists of the tow bar, on which there is the TPS suspension bar with rotary pivots Ø36 mm or Ø60 mm for categories TPS 3 and KIROVEC, furthermore of the middle frame with the transport axle and *TURBULENT 5; 6* of two side frames with copying wheels. On the middle and side frames, there are the working shares and a row of angle discs. The *TURBULENT* machine has as the last working body a couple of tyre crumbling rollers, which simultaneously compact the cultivated soil (Fig. 2).

MACHINE WORKING PARTS

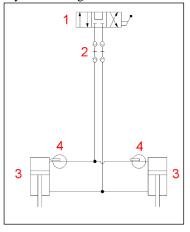
Fig. 2 - Machine working parts



- **1.1.1** Tow bar with folding standing foot
- **1.1.2** Copying wheels of side frames (Turbulent 5; 6)
- **1.1.3** Sections of shares in 4 rows; **FARMET** screwed shares
- **1.1.4** Sections of angle discs
- **1.1.5** Tyre roller including transport axle
- **1.1.6** Additional tyre roller

HYDRAULICS

Hydraulic diagram of Turbulent 3



- Hydraulic diagram of Turbulent 5; 6
- 1. Control distributor (tractor)
- 2. Hydraulic coupling
- 3. Hydraulic cylinder (axle)
- 4. Closing cock
- 5. Hydraulic closing valve (Turbulent 5; 6)
- 6. Hydraulic cylinder (Turbulent 5; 6 folding of side frames)



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.



2. 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 "C".

3. 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** p. 4-8. 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 is obliged to retract the working bodies of the machine from the ground when turning at the headland.
- The operator is obliged to observe the prescribed working depths and speeds stated in the manual in Tabl. 2/p. 4 when.
- The operator is obliged to lower the machine to the ground and secure the set against movement before leaving the tractor cabin.



DECREASE OF SOIL PRESSURE TO A VALUE LOWER THAN 200kPa

- To diminish soil pressure (lower than 200kPa), at turning at the headland do not lift the machine on the axle but only on the carriage beam by means of tractor hydraulics arms \rightarrow turn the machine only when it is unfolded and laid on all rear wheels.



3.1. AGGREGATION 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 table of requirements for the towing means for work with the machine:

(5) Requirement for the tractor eng	ine power for cultivator TURBULENT 3	120-180 kW
	ine power for cultivator TURBULENT 5	180-220 kW
	ine power for cultivator TURBULENT 6	220-340 kW
(6) Requirement for the tractor's		1010±1,5 mm, (possible to set also 910±1,5 mm)
TPS	(8) Ø of the hole of the lower suspension joints for the machine suspension pivots	Ø37,5 mm
	(10) Side frame folding circuit TURBULENT 5; 6	(14) Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
(9) Requirement for the tractor's hydraulic system	(11) Axle lifting circuit	(15) Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
	(W) Circuit of the setting of rectifying discs	(15) Circuit pressure 200 bar, 2 pcs of quick-coupler sockets ISO 12,5
(12) Requirement for the tractor's pneumatic system	(13) Machine axle braking circuit	(16) Circuit pressure min. 6 bar – max. 15 bar, 1 pc coupling head of single-hose brakes

• Connect the machine using the TPS suspension bar to the lower arms of the rear TPS of the tractor, secure the TPS arms using pins against disconnecting.

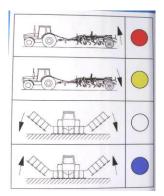


When connecting, no persons may stay in the space between the tractor and the machine.

3.2. HYDRAULICS CONNECTION

- 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. Perform the connection of the quick-couplers of the machine to the hydraulic circuits of the tractor so that the folding of the side frames (BLUE and WHITE DUST CAP) is on one control circuit and axle lifting (RED and YELLOW DUST CAP) on the other control circuit.
- Hydraulic control of the disc height setting connect the hydraulic tubes labelled with GREEN and BLACK DUST CAP into one hydraulic circuit of the tractor.





RED DUST CAP - circuit Dn10 for axle lifting piston rod ejecting

YELLOW DUST CAP - circuit Dn10 for axle lifting piston rod inserting

WHITE DUST CAP - circuit Dn10 for unfolding the side frames into the working position

BLUE DUST CAP - circuit Dn10 for folding the side frames into the transport position



BLACK, GREEN DUST CAP - hydraulic control of the disc height setting

• Release the spherical valve securing the transport position of the axle against unfolding of the side frames, release the spherical valves from the **CLOSED** position (Fig. 3) into the **OPEN** position (Fig. 4).

Fig. 3 – Spherical valve **CLOSED** position



Fig. 4 - Spherical valve **OPEN** position





In order to prevent accidental or foreign person (children, passengers) caused movement of the hydraulics, the control switchboards on the tractor must be secured or blocked in the transport position.

3.3. FOLDING AND UNFOLDING OF THE MACHINE - TURBULENT 5; 6



With all hydraulic movements, lower the speed of the moving parts of the machine before stopping by throttling the corresponding valve at the control unit!

- 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 and that no one puts his fingers into the joint space.
- Perform folding and unfolding on flat and solid surfaces or laterally to the slope with the fully open control unit.
- Only perform folding or unfolding with a machine that 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.





Machine Folding

- o Lift the machine on the axle.
- O Using the control unit of the tractor for "FOLDING", continuously fold the side frames.
- o Block or close the control unit.
- Close the spherical valves of the axle into the closed position (Fig. 3/p.12).

Machine Unfolding

- Open the spherical valves of the axle into the open position (Fig. 4/p.12).
- Lift the machine on the axle.
- Using the tractor's control unit for "UNFOLDING", continuously unfold the side frames.
- o Block or close the control unit.

4. MACHINE TRANSPORT ON ROADS



Transport Position of **TURBULENT 3**

- Connect the machine by suspending on the tractor using the two-point suspension equipment (TPS 3).
- o Lift the machine on the axle, set the spherical valves of the axle into the closed position (Fig. 3/p.12).
- o Hydraulically set the disc sections to the central position to ensure good clearness of the machine.
- o Insert the side angle discs on the middle frame into the transport position (Fig. 5,6).
- 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).
- o 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 20 kph.



Ban of transport with decreased visibility!



Transport Position of **TURBULENT 5**; **6**

- Connect the machine by suspending on the tractor using the two-point suspension equipment (TPS 3).
- Connect the machine brakes to the tractor using the brake head before lifting the machine on the axle, release the machine brakes.
- \circ Lift the machine on the axle, set the spherical valves of the axle into the closed position (Fig. 3/p.12).
- Fold the machine side frames into the transport position.
- o Hydraulically set the disc sections to the central position to ensure good clearness of the machine.
- Insert the side angle discs on the middle frame into the transport position (Fig. 5,6).
- 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 25 kph.



Ban of transport with decreased visibility!

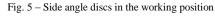






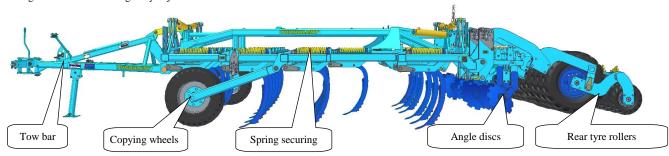
Fig. 6 – Side angle discs in the transport position



- Bring the machine into the transport 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 then against unwanted unfolding by disconnecting the hydraulic circuit of the machine and the tractor.
- The operator must secure the arms of the rear TPS of the tractor in the transport position during road transport, i.e. prevent unexpected arm drop using the hydraulic arm 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.

5. MACHINE WORKING BODY ADJUSTMENT

Fig. 7 – Machine working body adjustment



• The range of the working depths of the machine is stated in the following table.

Machine processing depth setting point



Scale 1-10

Disc depth setting point

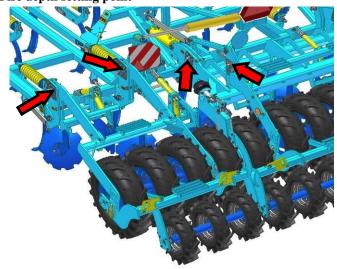


Table of orientation depth of the Turbulent 3-6 machine				
Machine depth setting	Orientation depth (mm)			
1	35			
2	70			
3	105			
4	140			
5	175			
6	210			
7	245			
8	280			
9	315			
10	350			

Perform the depth setting identically on the left and the right side of the machine.



For access to the depth setting places use only antiskid steps.

Do not step on any other part of the machine, especially on the tyres, under any circumstances – there is a risk of injury.

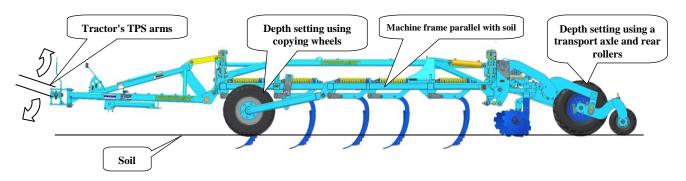


5.1 MACHINE WORKING DEPTH ADJUSTMENT

- **5.1.1** Using tractor TPS arms
- **5.1.2** Using copying wheel locks on side frames
- **5.1.3** Using transport axle locks
- **5.1.4** Using tyre roller locks
- **5.1.5** Hydraulic setting of the angle discs
- **5.1.6** Using support screws of side frames
- **5.1.7** Tyre roller processing plane setting
- **5.1.8** Taking rear additional rollers out of service

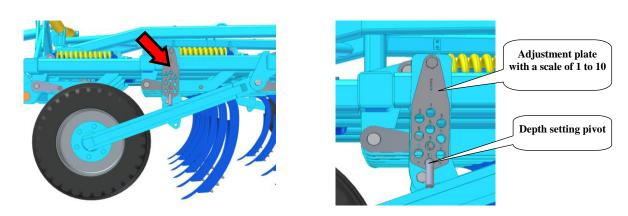
5.1.1 Machine adjustment using tractor's TPS arms

Using the tractor's TPS arms, set the machine into a plane with the soil, which will guarantee the same depth of soil processing in the front and rear part of the machine.



5.1.2 Machine adjustment using copying wheels of side frames

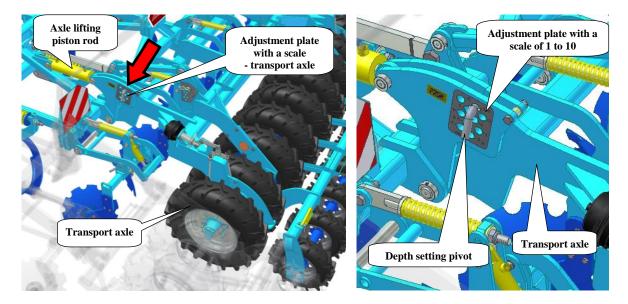
> Setting the depth using the copying axle is performed using a pivot that is set in the holes of the copying wheel adjustment plate.



5.1.3 Processing depth setting at the transport axle

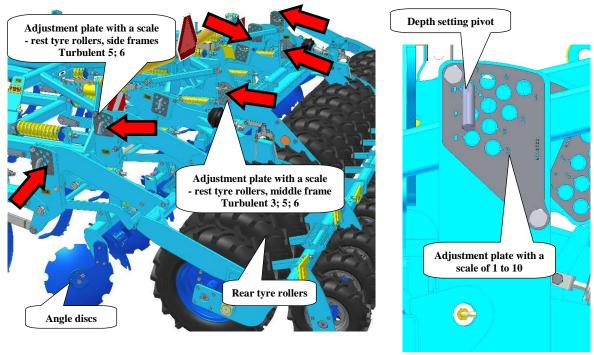
- Lower the machine to the shares (the piston rod for lifting the axle must be completely tugged in) to release the stopper for depth setting. Then you can change the position of the stopper as required.
- > The setting of the soil processing depth is performed with the transport axle using adjustment boards and securing pivots, identical depth setting with other mechanisms of the machine is secured by the gauge with a scale of 1-10.





5.1.4 Processing depth setting at tyre rollers

- Lift the machine on the axle; this will release the stoppers for depth setting of the pneumatic rollers.
- The setting of the soil processing depth is performed with the tyre roller using the adjustment plates and securing pivots, identical depth setting with other mechanisms of the machine is secured by the gauge with a scale of 1-10.

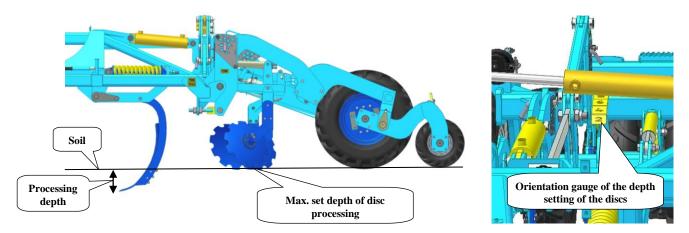


5.1.5 Angle disc processing depth adjustment

- The purpose of the angle discs is to straighten and direct soil after the share section.
- First set the working depth of the shares and then set the height position of the angle discs.
- > Set the depth of soil processing by the angle discs hydraulically (green and black marking of the hoses).
- For proper function of the hydraulic control of the discs, it is necessary to set the full flow of oil at the distributor of the tractor; this will ensure an even shift of the individual sections of the discs.
- ➤ Move the lever of the distributor section of the tractor to the utmost position when changing the position of discs.
- In case of uneven setting of the depth of the individual sections of discs do the following: stop the tractor with the machine, lower the discs into the soil; this will ensure the alignment of the depth of the discs.
- The height setting of the angle discs is changed according to the soil conditions, working depth, and the amount of post-harvest remnants.
- The suitability of the angle disc setting needs to be practically tested.

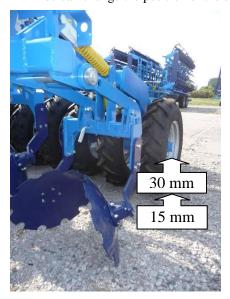


You can change the depth setting of the discs during work: if there are uncovered frame grooves behind the machine, the discs need to be recessed; if there is lengthwise unevenness (waves), the discs need to be lifted.



Adjusting the side extensible discs

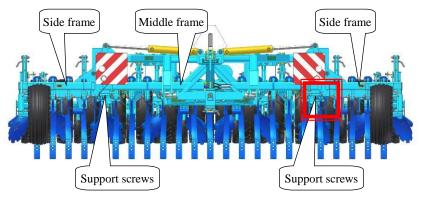
- > It is possible to change the depth of the side extensible discs to ensure good quality of line-up of the rides.
- > If there are uncovered channels on the sides of the machine, the extensible discs are set too deep.
- ➤ Loosen the screws, change the position of the disc as required, tighten the screws.
- You can change the position of the extensible disc by 15 or 30 mm.

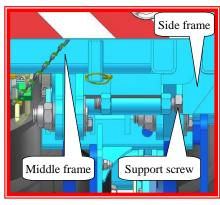




5.1.6 TURBULENT 5; 6 side frame setting

- > The support screws secure the setting of the side frames parallel with the middle frame.
- > If the side frames are not parallel with the middle, set the side frames using the support screws.





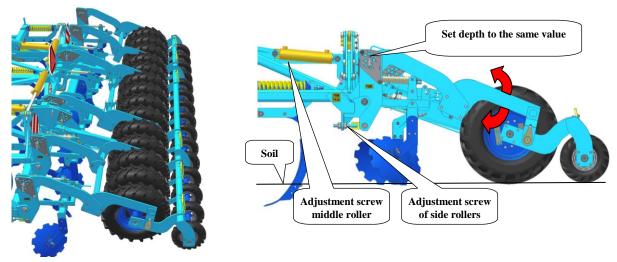


5.1.7 Tyre roller processing plane setting

- The basic setting of the tyre rollers is performed by the manufacturer so that even levelling and hardening of the soil surface is secured after processing with shares and angle discs.
- In case uneven surface is created behind the machine, it is probably necessary to adjust the tyre rollers into a plane.
 - Set the depth of all tyre rollers and the axle to the same value (e.g. 5).
 - Deepen the machine on a level field the tyre rollers and the axle are supported by the depth setting pivots.
 - Using the adjustable screws, set the middle roller parallel with the axle and frame wheels.
 - Using the adjustable screws, set the side rollers parallel with the axle wheels and the middle roller.
 - Tighten all nuts of adjustable screws with a torque of 1000 Nm.

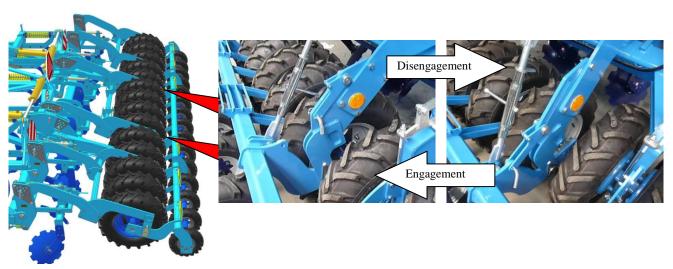


Regularly check the adjustable screw nut tightening, tighten as needed (1000 Nm).



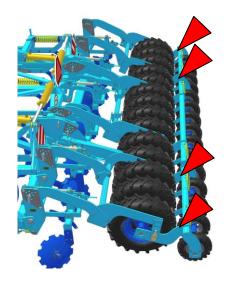
5.1.8 Disengagement of back auxiliary rollers

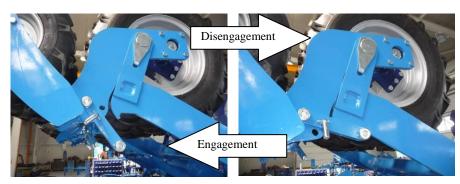
5.1.8.1 Disengagement of central roller



5.1.8.2 Disengagement of side rollers on TURBULENT 5; 6
Disengagement of small tyre rollers on the machine side frames must be done with the machine tilted down.







After tilting down to working position

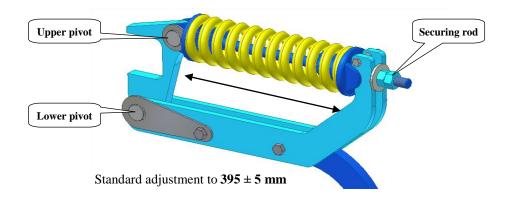




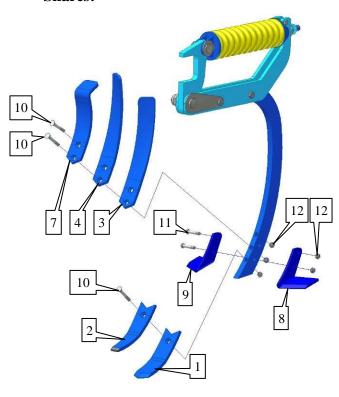


5.2 SHARE SECURING

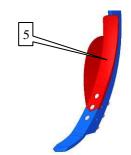
- \triangleright The basic setting of the securing spring is performed by the manufacturer at 395 ± 5 mm so it is horizontal.
- Regularly check the nut tightening of the lower and the upper pivot of the securing, tighten as needed.
 - Regularly check the nut tightening of the securing rod.

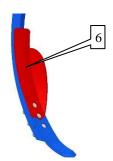


Shares:



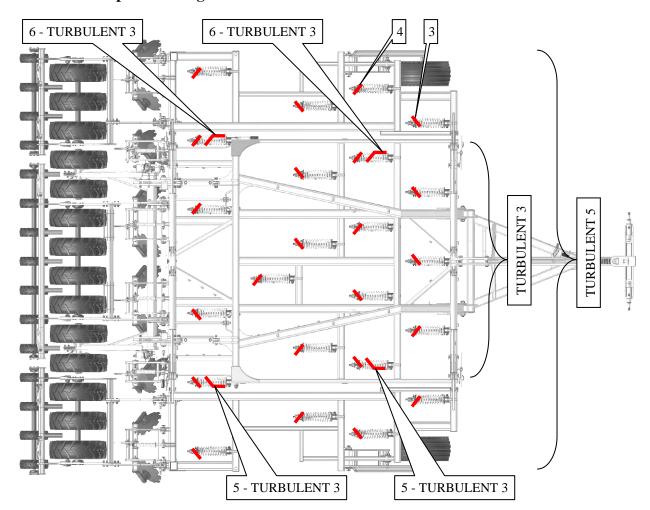
	Share Types			
Pos.	Title	Number		
1	Lower share	3002317		
2	Lower share SK plate	4005271		
3	Top right share	3002396		
4	Top left share	3002395		
5	Top right share with deflector	4005379		
6	Top left share with deflector	4005378		
7	Top share for small depths	3002413		
8	Left wing	3003294		
9	Right wing	3003295		
10	Plough screw	m08764		
11	Screw	m01131		
12	Nut	m06233		







Placement of top left and right shares on the machine



6. 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.

Do not clean hydraulic cylinders and bearings with a high-pressure cleaner or direct water stream. The seals and bearings are not watertight at high pressure.





7. 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. Lock the piston-rods by means of
 ball valves.
- The machine must not be supported by the shares. There is danger of machine share damage.
- Secure the machine against access of unauthorised persons.

8. MACHINE LUBRICATION SCHEDULE

During machine maintenance and its lubrication, it is necessary to observe the safety regulations.

Table 4 – Places and intervals of lubrication

LUBRICATION PO	INT	INTERVAL	LUBRICANT
Tow bar joint	Fig. 8	- Daily, always before the work with the machine Always after the end of works during machine	Plastic grease
Disc bearings	Fig. 9	toring. K EP 2	K EP 2 - 30
Tyre roller bearings	Fig. 10	- Always before storing the machine (for a period, when the machine will be stored without work).	dle DIN 51 502

Fig. 8 - Tow bar joint



Fig. 9 - disc bearings



Fig. 10 - Tyre roller bearings



Lubricant handling:

Protect yourselves against direct contact with oils by using gloves or protective creams.

Thoroughly wash oil spots on the skin using warm water and soap. Do not clean the skin with petrol, engine diesel fuel or other solvents.

Oil is poisonous. If you swallowed the oil, immediately seek a physician.

> Protect the lubricants against children.





9. ENVIRONMENTAL 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.

10. 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.

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.

Prepared by: Technical Department, Farmet a.s., Jirinkova 276, Ceska Skalice 552 03, On 15th January 2014, changes reserved.



Farmet a. s. Jiřinková 276 ČESKÁ SKALICE 552 03



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СНІ		CTION NUMBER:
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WARE	RANTY CONDITIONS:	_
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II.		will show in the warranty period with proper use of the machine
		the operating manual
III.	The warranty does not apply to wearable s	
	The warranty does not apply to wearable sparts of the working sections (shares, etc.).	spare parts, i.e. regular mechanical wear and tear of replaceable
IV. V.	The warranty does not apply to wearable sparts of the working sections (shares, etc.). The warranty does not apply to indirect consorthe warranty is bound to the machine and is	spare parts, i.e. regular mechanical wear and tear of replaceable sequences of possible damage, such as service life decrease etc. s not void upon an owner change.
IV.	The warranty does not apply to wearable sparts of the working sections (shares, etc.). The warranty does not apply to indirect consorthe warranty is bound to the machine and is the warranty is limited to the disassembly a	spare parts, i.e. regular mechanical wear and tear of replaceable sequences of possible damage, such as service life decrease etc. s not void upon an owner change. and assembly, possibly replacement or repair of the defective part.
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