Farmet

The effective technology

OPERATING MANUAL

VIDIUM

P 350 - P 450

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Farmet a. s.
Jiřinková 276
552 03 Česká Skalice, CZ

Tel:: +420 491 450 111
Fax: +420 491 450 136
GSM: +420 774 715 738

Company ID: 46504931
Tax ID: CZ46504931

web: **www.farmet.cz**
e-mail: farmet@farmet.cz

Dear Customer,

The semi-carried **VIDIUM** ploughs are quality products by Farmet a.s. Česká Skalice.

You can fully utilise the advantages of your machine after thoroughly studying the Operating Manual.

The serial number of the machine is punched on the production label and written in the Operating Manual (see 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.

Application of the Plough

The **VIDIUM** plough is designed for ploughing all types of soil.

Production label of the **VIDIUM plough:**

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 ploughing (cultivation) up to the depth of 35 cm when ploughing agricultural soil. Any other type of application outside the determined purpose is not permitted.
- (x) Machine operation is performed by the tractor operator.
- (x) Machine operator must not use the machine in a different way, especially:
  - (x) Transport people on the machine frame,
  - (x) Transport load on the machine frame,
  - (x) Aggregate the machine with towing equipment other than specified in Chapter "**3.1**/p.9".

TECHNICAL PARAMETERS

Table 2 – Technical Parameters of Ploughs

PARAMETERS	P 350	P 450
Frame section (mm)	150 x 150 x 12	200 x 200 x 16
Transport width (mm)	2500	2500
Transport height (mm)	2500	2500
Working depth (mm)	max 350	
Number of ploughshares	6 - 9	8 - 12
Pulling vehicle (kW/HP)	275/350*	330/450*
Maximum transport speed (km/h)	25	
Maximum slope grade (°)	6	
Machine weight (kg)	3070 - 4140	4626 - 6820

* Recommended pulling vehicle, the real towing force may significantly vary according to the processing depth, soil conditions, land slope, wear of the working bodies and their adjustment.

SAFETY ADVICE

This warning sign warns of an imminent dangerous situation leading to death or severe injury.

This warning sign warns of a dangerous situation leading to death or severe injury.

This warning sign warns of a situation that may end with a smaller or minor injury. It also warns of dangerous actions related to the activity that could lead to an injury.

A. GENERAL INSTRUCTIONS FOR USE

A.1 (x) The machine is manufactured in accordance with the latest equipment state and approved safety regulations. However, the use of the machine may create risks of user or third person injury or machine damage or other material damage.

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 the 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) The person must own a valid driving licence in the corresponding category,
- (9) The person must be verifiably informed of the safety regulations for working with the machine and must practically master the machine operation,
- (10) The machine must not be operated by minors,
- (11) The person must know the meaning of the safety signs located on the machine. Observance of the signs is important for a safe and reliable operation of the machine.

A.4 (12) Maintenance and service repairs may only be performed by a person:

- (13) Authorized by the owner,
- (14) Trained in an engineering field with the knowledge of repairs of similar machinery,
- (15) Verifiably informed on the safety rules of working with the machine,
- (16) With a driving licence in the relevant category for repairs of the machine attached to a tractor.

A.5 (17) The operator of the machine must ensure safety of other people during the work with the machine and its transportation.

A.6 (18) The operator should not be on the construction of the machine during the work in the field or during the transportation ⇒ the operator must control the machine from the tractor cabin.

A.7 (19) The operator may only enter the construction of the machine when the machine is turned off and secured against movement only in order to:

- (20) Adjust the working parts of the machine,
- (21) Repair and maintain the machine.

A.8 (xxx) When climbing onto the machine, do not step on the tyres of the rolls or other revolving parts as they may roll over and you can seriously hurt yourself if you fall down.

A.9 (22) Any changes or adjustments of the machine may only be performed with a written consent of the Producer. The Producer is not responsible for any potential damages occurred as a result of non-compliance with this instruction. The machine must always be equipped with the prescribed accessories, equipment and gear including the safety labels. All warning and safety signs must be always legible and at their positions. They must be replaced if damaged or lost without delay.

A.10 (23) The Operating Manual and the occupational safety requirements must be always available to the operator.

A.11 (24) When operating the machine, the operator must not consume alcohol, medicine, narcotic and hallucinogenic substances that reduce attention and coordination abilities. If the operator has to take medicine prescribed by the physician or if he or she uses over the counter medicine, he or she must be informed by the physician whether he or she is able to reliably and safely operate the machine under these circumstances.

PROTECTIVE EQUIPMENT

The following is required for operation and maintenance:

- Tight-fitting clothing
- Protective goggles and gloves for protection from dust and sharp parts of the machine

B. TRANSPORTING THE MACHINE USING VEHICLES

B.1 (1) The vehicle intended for the transportation of the machine must have at least the same bearing capacity as the weight of the transported machine is. The total weight of the machine is stated on the production label.

B.2 (2) The dimensions of the transported machine including the vehicle must comply with valid regulations for traffic on ground communications (decrees, acts).

B.3 (3) The transported machine must be always attached to the vehicle so that it cannot be released during transportation.

B.4 (4) The carrier is responsible for damages caused by the release of incorrectly or insufficiently attached machine to the vehicle.

C. USING LIFTING EQUIPMENT FOR THE MACHINE

C.1 (1) The lifting equipment and binding instruments intended for manipulation with the machine must have at least the same bearing capacity as the weight of the manipulated machine is.

C.2 (2) The machine may only be attached for manipulation in designated places marked by stick-on labels showing a "chain".

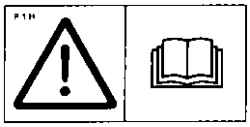
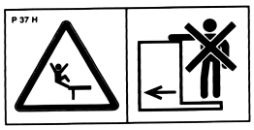
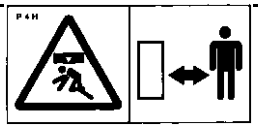
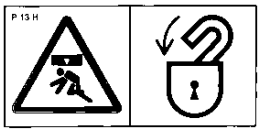
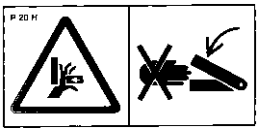
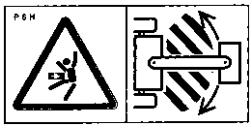
C.3 (3) When attached (suspended) in designated places, it is not allowed to move in the area of potential reach of the manipulated machine.

D. WORK SAFETY LABELS

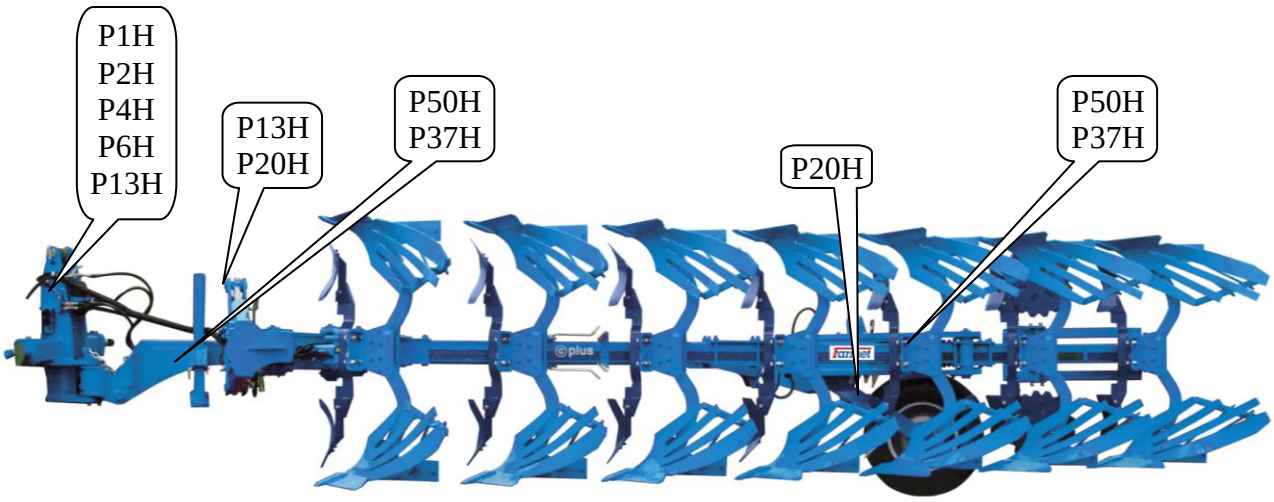
Warning safety labels are used for the protection of the operator.
The following applies generally:
A) Strictly observe the warning safety labels.
B) All safety instructions also apply to other users.
C) If the aforementioned "SAFETY LABEL" located on the machine is damaged or destroyed, THE OPERATOR MUST REPLACE IT WITH A NEW ONE!!!

The position, appearance and exact meaning of work safety labels on the machine are given in the following tables (Tab.3/p.6-7) and the picture (Picture 1/p.7).

Tab. 3 – Adhesive Warning Safety Labels Located on the Machine

WARNING SAFETY LABEL	TEXT FOR THE LABEL	POSITION ON THE MACHINE
	Read the Operating Manual carefully before operating the machine. Observe the instructions and safety rules when operating the machine.	**P 1 H**
	Stay out of reach of the plough when rotating.	**P 50 H**
	Driving the machine and transportation on its frame is strictly forbidden.	**P 37 H**
	When connecting and disconnecting, do not enter the area between the tractor and the machine. Do not enter that area unless the tractor and the machine are not moving and the engine is off.	**P 2 H**
	Stay out of reach of the lifted machine.	**P 4 H**
	Secure the rotation of the plough before its transportation.	**P 13 H**
	Do not reach into the area of the machine joints when the machine is running.	**P 20 H**
	Stay out of reach of the tractor-agricultural machine set when the tractor engine is running.	**P 6 H**

Picture 1- Location of Safety Labels on the Machine

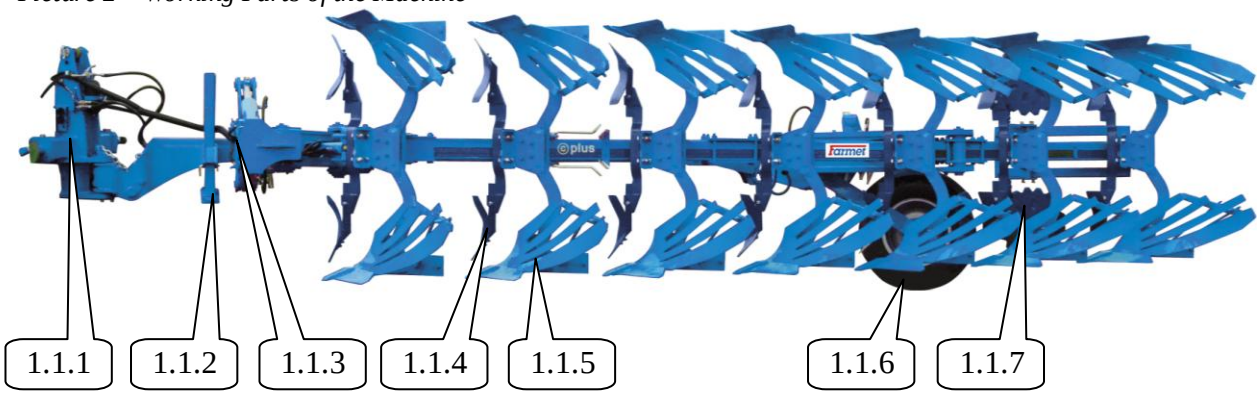


1. DESCRIPTION

VIDIUM P350 and ***P450*** are designed as semi-carried. The machine is equipped with TPH 3 mechanism to which the rotating mechanism of the plough is attached in the front. TPH 3 rotates the main supporting frame where a row of double ploughshares is located, or also the tracing wheels or coulters, when included. In the rear, there is a transportation axle, formed either with an independent wheel or a pair of wheels according to the plough type. The ploughshares are protected either mechanically with a shear bolt or hydraulically.

WORKING PARTS OF THE MACHINE

Picture 2 – Working Parts of the Machine



1.1.1 TPH pulling hitch
1.1.2 Supporting leg
1.1.3 Rotary mechanism
1.1.4 Skim coulter
1.1.5 Ploughshare
1.1.6 Transport axle / wheel
1.1.7 Coulters

Working Body Mouldboards:

WY400

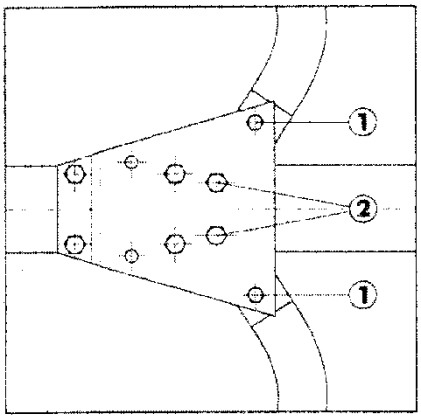
WST 430

PLOUGHSHARE PROTECTION AGAINST OVERLOAD

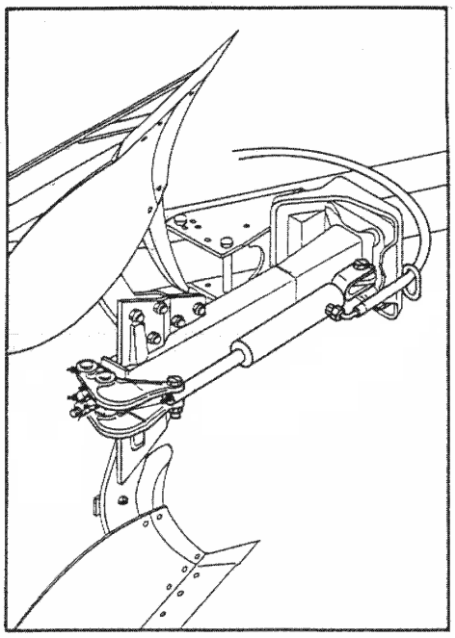
MECHANICAL PROTECTION BY A SHEAR BOLT

The VIDIUM ploughs are equipped with shear bolts that protect against damage caused by overload (Pos. 1). When the bolt is cut off, it is required to loosen the three-point screw (Pos. 2), lift the plough and remove the remnants of the shear bolt in order to return the tilted body of the plough into the working position. The new shear bolt and the three-point screw must be tightened properly.

To ensure effective protection, always use original shear bolts with corresponding dimensions and quality to ensure effective protection! Never use bolts with higher or lower strength or bolts with a shorter head!



FULLY AUTOMATIC HYDRAULIC PROTECTION (= NON-STOP protection against rocks)



Function:
When the body of the plough hits an obstacle (rock), the resistance is strong enough to activate the non-stop element. The hydraulic oil in the hydraulic cylinder (placed on the non-stop element) is compressed towards the oil tank. As soon as the body of the plough overcomes the obstacle, the hydraulic tank pushes the oil back in the hydraulic cylinder and returns the non-stop element into its initial position.

The trigger pressure (= working pressure) may be adjusted using the pressure regulation hose from the tractor hydraulics as required. The working pressure can be read from the pressure gauge.

When reading the pressure regulation hose, close the valve on the plough, depressurize the hose using the tractor hydraulics and then remove the hose. If the hose remains attached to the tractor, be cautious not to squeeze or slack it.

All non-stop elements must be equipped with a shear bolt to ensure protection against overload. The assembly and disassembly is performed using the three-point screw as described for the shear protection.

HYDRAULIC TANK PRESSURE:

Tank pressure 90 bar
Min. work pressure 90 bar
Max. work pressure 140 bar

The compressed air equipment may only be readjusted by a trained professional!

The oil pressure may only be readjusted using the tractor hydraulics and the pressure regulation hose!

No people may be near the area of the ploughshare piston-rods or near the hydraulic tank when working! (The system is under high pressure.)

SAFETY INSTRUCTIONS:
When assembling and disassembling the hydraulic protection (cylinder, tank, hose, pipeline etc.), first lower the pressure completely using the pressure regulation hose (the system is under high pressure) ⇒ RISK OF INJURY!
Before lowering the pressure in the system, the plough must be disconnected and secured in a suitable way ⇒ otherwise, there is a risk of tipping!

2. ASSEMBLY OF THE MACHINE AT THE CUSTOMER'S SITE

- The owner must execute the assembly according to the Producer's instructions, if possible in cooperation with a professional service technician determined by the Producer.
- The owner must execute a functional test of all assembled parts after the completion of the assembly of the machine.
- The owner must ensure that the manipulation with the machine by lifting equipment corresponds with Chapter **"C"**.

3. ACTIVATION

- Before you take over the machine, test and check it for any damages incurred during transportation and check that all parts included in the delivery note have been delivered.
- Before you put the machine into operation, read the Operating Manual carefully, particularly chapters **A-D** p.4-7. Learn about the control elements of the machine and its overall function before the first use.
- When working with the machine, observe the instructions in the manual as well as generally valid rules for the safety at work, protection of health, fire and traffic safety and protection of environment.
- The operator must check the machine before every use (putting into operation) for aspects in the field of completeness, safety at work, work hygiene, fire safety, traffic safety and protection of environment. If the machine shows signs of damage, it must not be put into operation.
- Execute aggregation of the machine with the tractor on an even and compact surface.
- When working on slopes, observe the lowest slope accessibility of the whole set **TRACTOR – MACHINE.**
- Before starting the engine of the tractor, check that there are no people or animals in the working area of the set and press the warning sound signal.
- The operator is responsible for safety and for all damages caused by the operation of the tractor and the attached machine.
- The operator must observe technical and safety regulations of the machine determined by the Producer when working with the machine.
- The operator must raise the machine when turning at the headland, i.e. the working parts must not be in the ground.
- The operator must observe the prescribed working depths and speeds set in the instructions for use in Table 2/p.4 when working with the machine.
- The operator must lower the machine to the ground and secure the set against movement before leaving the cabin of the tractor.
- When lowering the machine down, make sure you do not damage the chisels and ploughshares by dropping the machine on reinforced surface. Position the machine on an even surface so that the weight of the machine is evenly distributed to all ploughshares.

3.1.AGGREGATION WITH THE TRACTOR

- The machine may only be connected to a tractor whose standby weight equals or is higher than the total weight of the attached machine.
- The operator must observe all generally valid regulations for the safety at work, protection of health, fire safety and protection of environment.
- The operator may only attach the machine to a tractor which is equipped with a rear three-point hitch (TPH) and a functional undamaged hydraulic system.

- The table with the requirements for the tractive instrument for work with the machine:

(5)Requirement for the tractor engine power for **P 350**			275 kW*
(5) Requirement for the tractor engine power for **P 450**			330 kW*
(6) Requirement for TPH of the tractor	(7) Distance of the bottom hitch hinges (at the axes of the hinges)	TPH 3	1100±1.5 mm
	(8) ∅ holes of the bottom hitch hinge for the hinge pins of the machine	TPH 3	37.4 – 37.75 mm
	(18)∅hole of the top hitch hinge for the hinge pin of the machine	TPH 3	32.0 – 32.25 mm
(9)Requirement for the hydraulic system of the tractor	Circuit for plough rotation		(14)Pressure in circuit 200bar, 2 sockets for snap coupling ISO 12.5
(9) Requirement for the hydraulic system of the tractor	Circuit for lifting plough on the axle		(14) Pressure in circuit 200bar, 2 sockets for snap coupling ISO 12.5
(9) Requirement for the hydraulic system of the tractor	Circuit for controlling the width of the plough and the first ploughshare		14) Pressure in circuit 200bar, 2 sockets for snap coupling ISO 12.5

* Recommended pulling vehicle, the real towing force may significantly vary according to the processing depth, soil conditions, land slope, wear of the working bodies and their adjustment.

CONNECTING THE PLOUGH TO THE TRACTOR

- Connect the plough in the working or transport position to the tractor in the following way:
- The diameter of the connecting axle (pin diameter) must be 36 mm!
- The hydraulic equipment of the tractor must be switched to position regulation.
- Connect the bottom drawbar with the connecting axle of the plough and secure it with a safety pin.
- Lift the connecting body using the bottom drawbar.
- Release the chain from the cross joint.
- Tip the bottom drawbar until the top drawbar matches the top opening of the body to be connected.
- Mount the top drawbar of the tractor to the connecting body using the connecting pin and secure it with a safety pin. The length of the top drawbar should be selected so that the connected body and the towing fork are horizontal.
- Lift the bottom drawbar.
- Release the support, move it up and arrest it.
- Mount hydraulic hoses to the control equipment of the tractor.
- Remove the Scotch blocks.
- The hydraulic equipment must be switched on using the tractive force or mixed regulation in order to work with the plough. Observe the operating manual of the producer of the tractor.

DISCONNECTING THE PLOUGH

- Switch the hydraulic equipment into the position regulation.
- Turn the frame of the plough into the transport position and close the ball valves on the stripper.
- Close the stop valves for the rotating element or for the wheel spacing adjustment.
- Position the plough on solid and even ground.
- Release the support, move it down and arrest it.
- Lower down the chassis completely (until the impact spindles on the wheel forks are lifted) and close the stop valve for lifting hydraulics.
- Secure the chassis with Scotch blocks to prevent movement!
- Lower down the bottom drawbar until the top drawbar can move freely.
- Remove the top drawbar from the connected body and lift the bottom drawbar.
- Hang the safety chain on the cross joint and lower the bottom drawbar.
- Disconnect the bottom drawbar from the connecting axle.
- Depressurize the hydraulic equipment of the tractor.
- Switch off the engine.
- Disconnect the hydraulic hoses from the tractor and mount the dust covers.

⚠ **When connecting the machine, there must not be any people in the area between the machine and the tractor.**

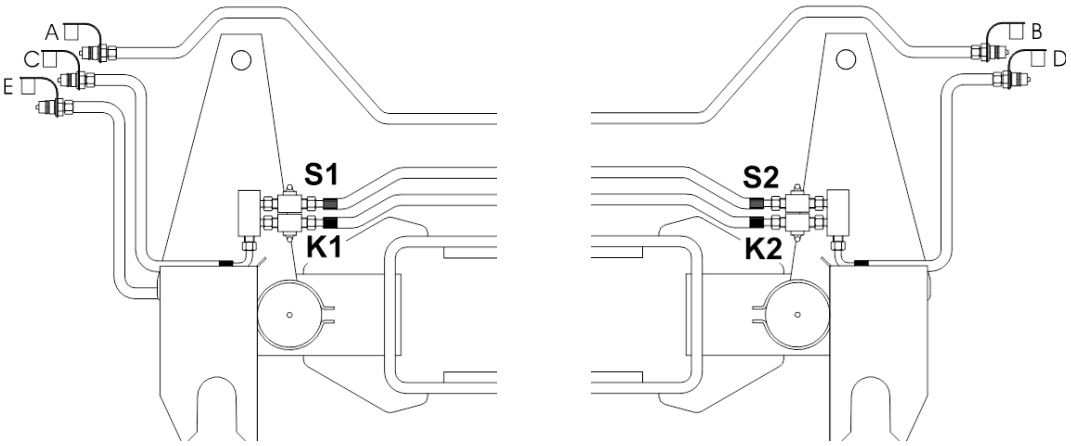
3.2.CONNECTING THE HYDRAULICS

- Connect the hydraulics only if the hydraulic circuits of the machine and the tractor (aggregate) are without any pressure.
- The hydraulic system is under great pressure. Check regularly for leakages and immediately eliminate any visible damage to all distribution, tubes and screw joints.
- Use appropriate equipment when checking for and eliminating leakages.
- Use the plug (on the machine) and the socket (on the tractor) of the same type of snap coupling when connecting the hydraulic system of the machine to the tractor. Connect the snap couplings of the machine to the hydraulic circuits of the tractor so that the plough rotation is on one control circuit and the plough lifting on the axle is on another control circuit.

⚠ **In order to rule out unintentional movement of the hydraulics or movement caused by third persons (children, passengers), the controlling distributors in the tractor must be secured or blocked and the controlling unit switched off if the machine is not used or if it is in the transport position.**

End Pieces	Valve Position	Function
A, B		Plough rotation (see Chapter “Plough Rotation”)
C, D	K1 OFF S1 OFF K2 OFF S2 OFF	First ploughshare setting and work coverage width is off
	K1 S1 OFF K2 S2 OFF	Activated VARIO work coverage width setting (according to the equipment of the machine)
	K1 OFF S1 K2 OFF S2	Activated first ploughshare hydraulic setting (according to the equipment of the machine)
E	H OFF	Lifting of the machine on the axle is closed (transport)
	H	Lifting of the machine on the axle is open

Plough hitch: view from the left **view from the right**



3.3.PLOUGH ROTATION

For rotation of the ***VIDIUM P 350*** and ***P450*** ploughs, both rotary rollers are connected to the double-acting control devices.

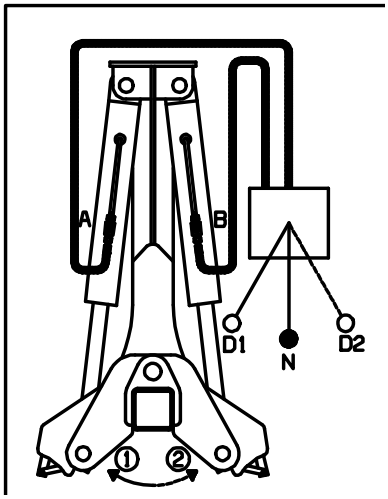
CULTIVATOR ROTATION IN GENERAL

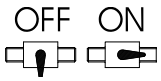
Prior to each rotation it is required to check that there are no people present in the area of rotation and tilting of the plough. Furthermore, make sure that the bending element is blocked!

*1 The rotating hydraulics is only controlled from the tractor
*2 Do not bend or press the high-pressure hydraulic hoses
*3 Keep the plug-in coupling clean at all times
*4 The bending element must be blocked and the plough must be completely lifted for each rotation

ROTATION BY THE CYLINDER

Prior to rotation, it is required to check that the ball valves (A, B) are turned into the "flow" position (ON).





N = Neutral:
Rotation complete

D1 = Rotation:
When the lever is in this position, the plough will rotate in Direction 1

D2 = Rotation:
When the lever is in this position, the plough will rotate in Direction 2

Rotation in Direction 1:
Lever from Position N to Position D1

Interruption of rotation:
Lever from Position D1 to Position N
(Plough frame is fixed)

Resume rotation:
Lever from Position N to Position D1

Returned rotation:
Lever from Position N to Position D2

Rotation in direction 2:
Lever from Position N to Position D2

Interruption of rotation:
Lever from Position D2 to Position N
(Plough frame is fixed)

Resume rotation:
Lever from Position N to Position D2

Returned rotation:
Lever from Position N to Position D1

4. TRANSPORTING THE MACHINE ON ROADS

- When reversing with the machine, the operator must make sure that he or she has a sufficient view from the driver's position in the tractor. If the view is not sufficient, the operator must call for a qualified and informed person to assist.
- When transporting the machine on roads, the operator must secure the arms of the rear TPH of the tractor in the transport position, i.e. prevent a sudden drop of the arms using the hydraulic arm control lever. At the same time, the arms of the rear TPH of the tractor must be secured against swivelling to the sides.
- When transporting the machine on roads, the operator must observe all valid acts and governances that regulate such transport and that specify the relations of tractor axle loads in relation to the transport speed.
- To activate the hydraulic spring, loading, fully lift the chassis of the plough and then lower it by about 5 cm.
- The ball valves for tilting must be closed during transport to prevent tilting of the plough from the central position.

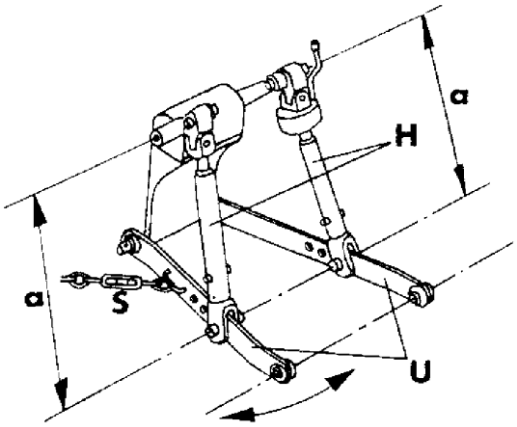
5. ADJUSTING THE CULTIVATOR

5.1 PREPARATION OF THE TRACTOR

- Learn about all the functions of the tractor! Read the operating manual for the tractor! It is too late to do so once you commence work!
- Pressure in tyres – the pressure in the tyres of the axle must be the same
  (The different pressure in the tyres of one axle causes a different ploughing angle when driving in opposite direction)
- Make sure that the front part of the tractor is sufficiently loaded with stabilizing weights. It will also improve the transfer of the pulling force (creeping) of tractors with four-wheel drive.

Lifting Bars:

The lifting bars **H** must be set to the same length **a** on the right and left sides. If it is possible to move the lifting bars **H** in the bottom arms **U**, move them as far back as possible. This will relieve the hydraulic equipment of the tractor.

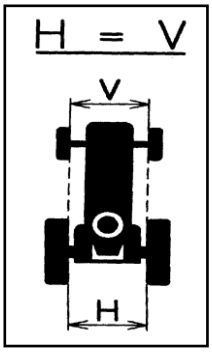


Side Stabilization of the Bottom Equipment Arms:

The bottom arms of the equipment **U** must have as large movement to the sides during work as possible. Stabilizers or stretching chains **S** must not be turned on during ploughing. During transport, the movement of the bottom arms of the equipment **U** is largely restricted or the arms are completely blocked.

Regulation:

Basically, when the plough is aggregated with a tractor with regulation hydraulics, it is operated in the mode of the regulation puling force or mixed regulation. The assembly and disassembly of the plough is executed in the mode of the regulation position.

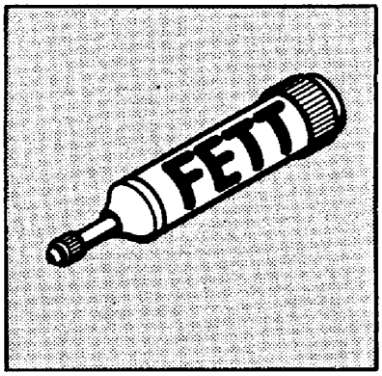


Clearance:

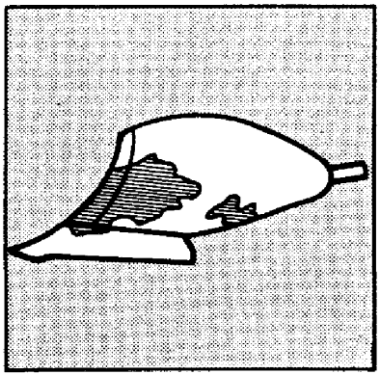
"CLEARANCE" = the internal dimension of the wheels must be the same both in the front and in the rear or the spacing of the front axle must be greater by 5-10cm (advantage when ploughing on the slope or when the rear tyres are wider)

V + (0-10cm) = H

5.2 PREPARATION OF THE PLOUGH



Lubrication:
Lubricate all lubricating points
According to the Lubrication Plan (Chapter 8)



Protective Coating
Remove the protective coating from the ploughshares

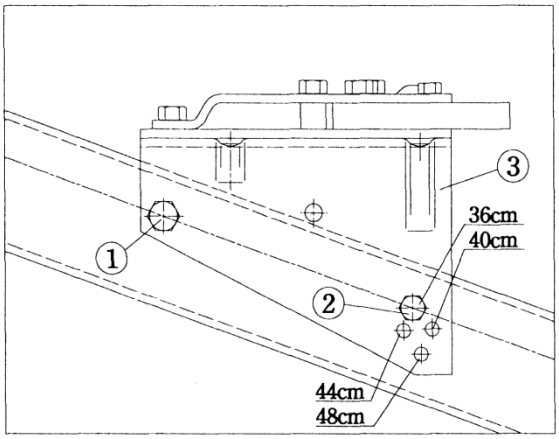
5.3 SETTING THE PLOUGH

IN GENERAL

When the plough is used for the first time, we recommend to perform general setting in the yard. After that, only minor setting corrections are required in the field provided that the recommendations are observed. Execute the settings only when the plough is aggregated with the tractor!

5.3.1 Setting the Work Coverage Width

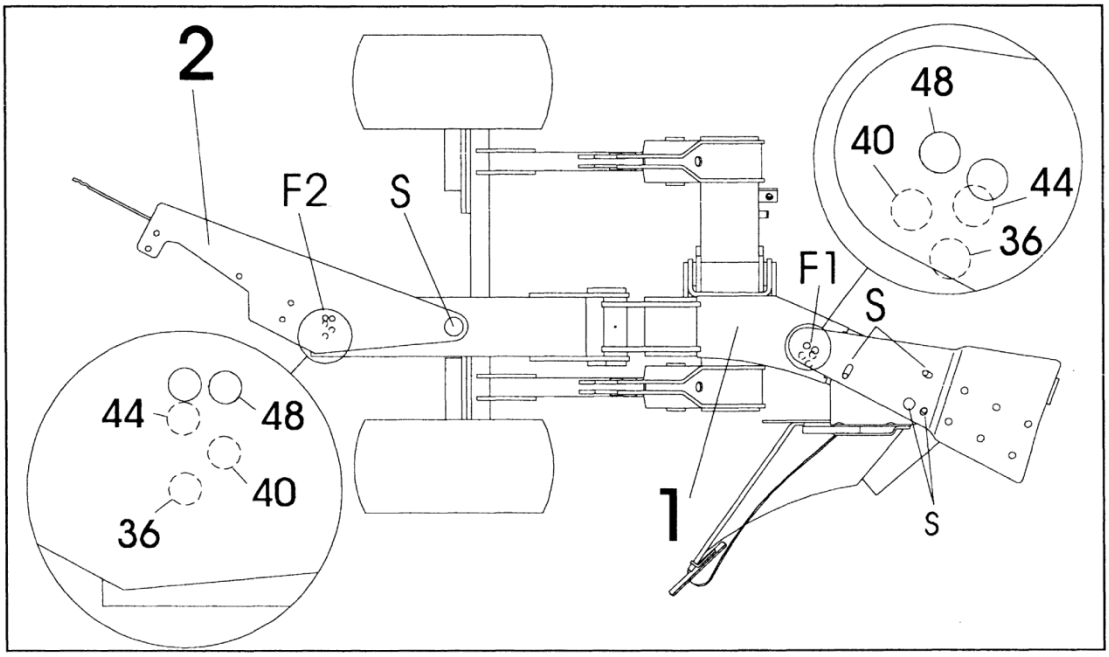
There are four possible work coverages for VIDIUM P350 and P450: 36 cm, 40 cm, 44cm and 48 cm



a) Loosen the front bolt of the plough shaft carrier (Pos. 1)
b) Remove the rear bolt of the plough shaft carrier (Pos. 2)
c) Tilt the plough shaft carrier (Pos. 3 so that the required opening of the plough shaft carrier is located in the frame tube
d) Install the bolt back (8 Pos. 2)
e) Tighten the bolts (Pos. 1 and 2)

When setting the work coverage width, tilt the tools such as fertilizer back-filler, disk coulter and supporting wheel – if available – separately and adjust them precisely to the new work coverage width. No other resetting or adjustments are necessary.

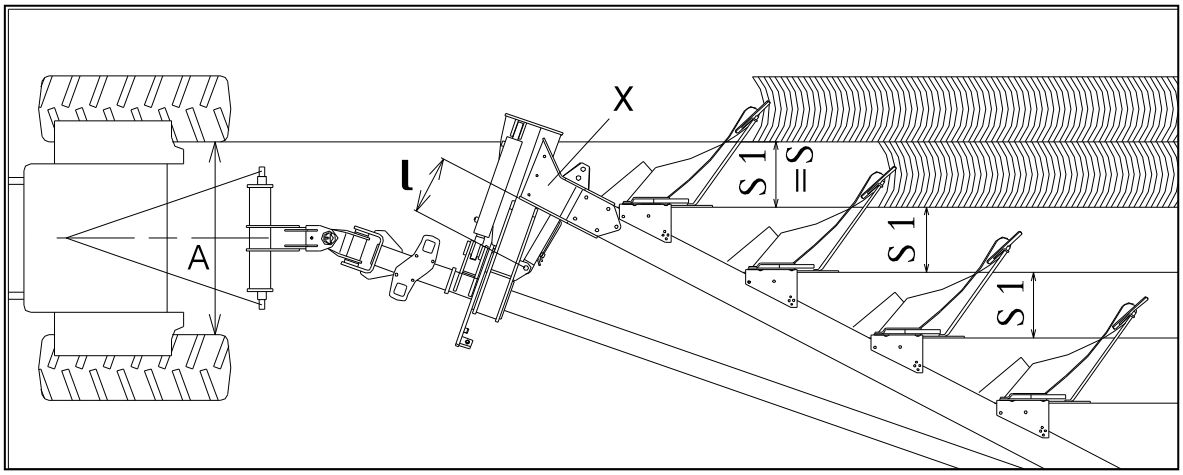
Adjusting the Chassis to the Work Coverage Setting–> only in P 450!



1. Loosen bolts S
2. Remove fixing bolt F1
3. Tilt chassis 1 so that the required openings are above one another (according to the diagram)
4. Install fixing bolt F1back
5. Remove fixing bolt F2
6. Tilt the end of frame 2 so that the required openings are above one another
7. Install fixing bolt F2 back
8. Tighten bolts S, F1, F2

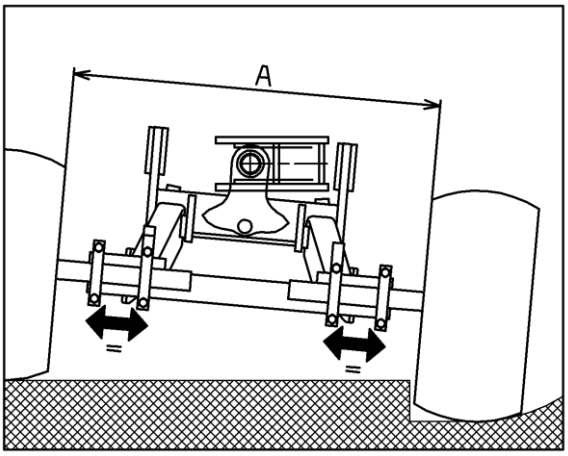
5.3.2 Gross Adjustment of the Plough to the Tractor Width

Based on the different interior spacing of the rear tractor wheels A and the set work coverage S, the plough is first adjusted grossly using the support X guidance.



Additionally, the interior spacing of the wheels of the chassis to the depth of ploughing has to be adjusted. The interior distance is in the following table:

Depth	Shear pin	Non-stop
<10 cm	approx. 100 cm	approx. 125 cm
10 cm	approx.100 cm	approx.125 cm
15 cm	approx.103 cm	approx.128 cm
20 cm	approx.106 cm	approx.131 cm
25 cm	approx.110 cm	approx.135 cm
30 cm	approx.113 cm	approx.138 cm
35 cm	approx.116 cm	approx.141 cm



The setting must be selected so that the interior side of the wheels does not collide with the wall of the furrow.

5.3.3 Setting the Working Depth

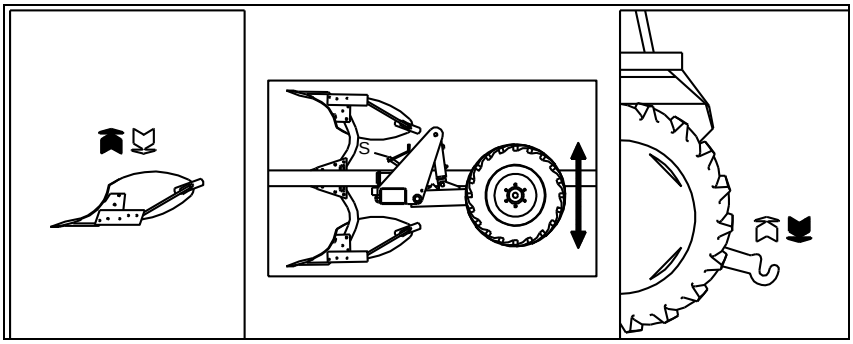
- In the front part of the plough, the working depth is changed using the three-point hitch of the tractor. Lift the three-point hitch of the tractor for shallow work and lower it down for deeper work.
- The setting of the working depth is changed in the area of the chassis using the setting nuts on both rollers of the chassis. For that, it is required to lift the chassis so that the setting nuts may be loosen. Turn the nuts clockwise (in the direction of travel) for shallow work and anti-clockwise for deeper work.

→ Make sure that the nuts are set to the same depth both on the right and left side, otherwise undesirable overload will be created in the chassis.

- The working depth of the rear plough is changed using the bolts for setting depth on the rear swivelling supporting wheel. Loosen the safety nuts. Turn the bolts inside for deeper work and outside for shallow work. Then tighten the safety nuts.

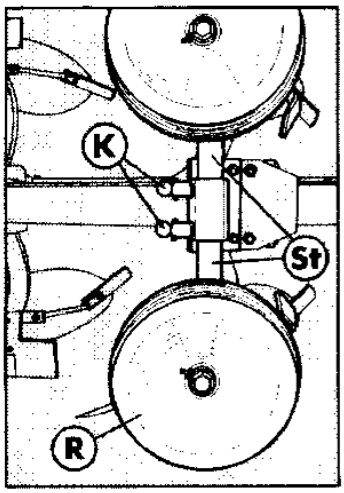
→ Make sure that both nuts are set to the same depth. Otherwise, the plough will work at different depths on the right and on the left.

- At the beginning, check that the plough is horizontally levelled during work and adjust it using the steps above.



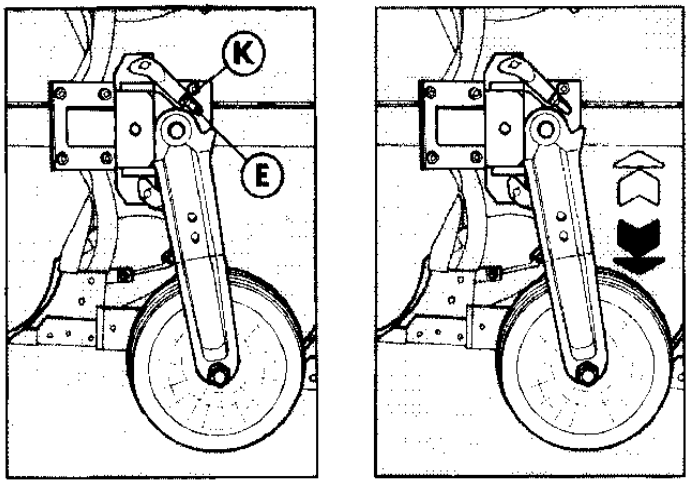
SETTING THE DEPTH BY THE REGULATION HYDRAULICS:
See the operating manual of the producer of the tractor

5.3.4 Setting the Depth of the Double Supporting Wheel



Pull out the ball K of the corresponding lever of the supporting wheel St and turn it by 90°. Move the supporting wheel R into the required depth and snap the ball back in.

5.3.5 Setting the Depth of the Swivelling Supporting Wheel

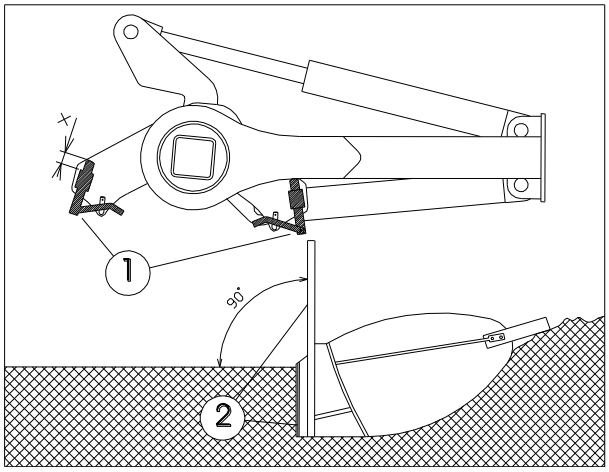


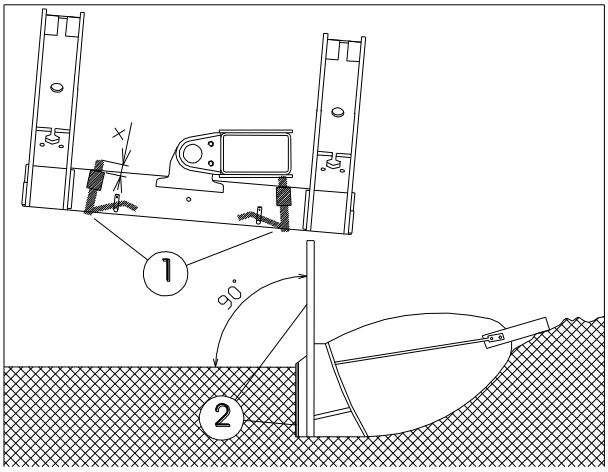
The depth is set using the setting bolt E separately for both sides.

Greater working depth: Screw the setting bolt E in
Lower working depth: Screw the setting bolt E out

Put the setting screw E into the horizontal position and secure it with safety nut K!

5.3.6 Setting the Plough Angle

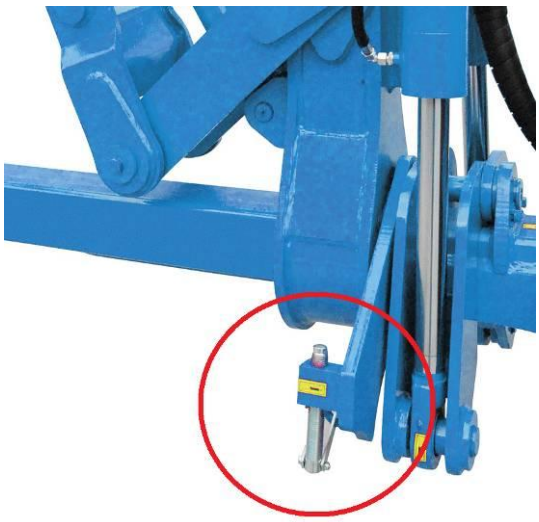




The angle of the wheel is set using the setting spindle (Pos. 1) separately on the left and on the right so that the equipment or the plough shaft (Pos. 2) is vertically to the ground. To turn the setting spindle, it is required to shortly compress the rotary cylinder.

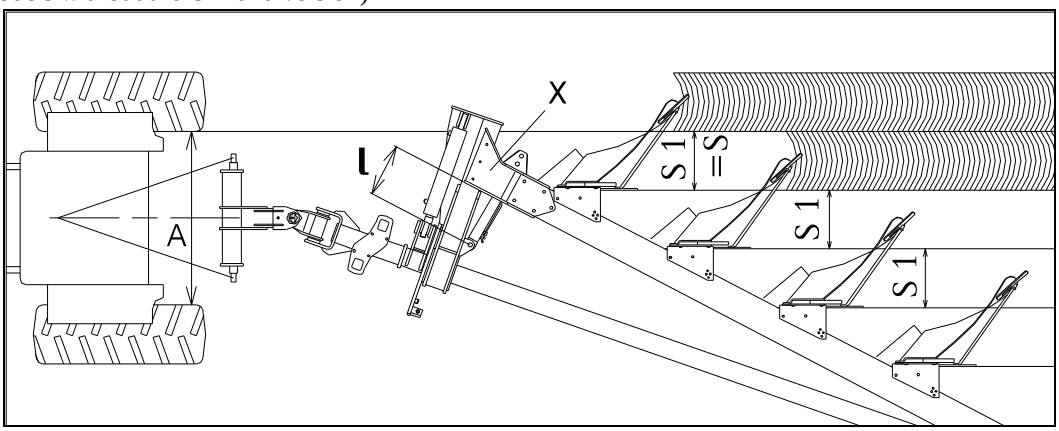
The angle is set by the tilting mechanism in the front and at the axle in the rear.

OnLand Version:
The setting spindles are turned all the way down in the OnLand Version (x= approx. 1cm)



5.3.7 Precise Adjustment of the Spacing

(For models without the OnLand version)

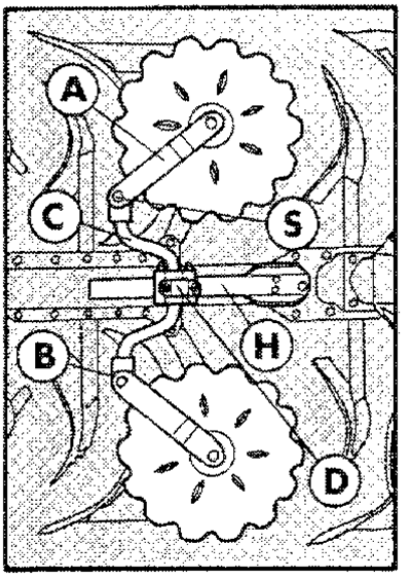


According to the depth of ploughing and the setting of the wheel angle, the work coverage of the first body S1 is adjusted using the support X guidance with the setting cylinder so that it corresponds with the appropriate work coverage of the rear body S.

In OnLand models that are set to the furrow operation, this setting is performed using the perforated bar.

The size of all other settings is influenced by each setting adjustment and therefore they must be also adjusted.

5.3.8 Setting the Disk Coulter



The depth of the disk coulter is set in the following way: loosen the screw S and set the arms of the balance lever A according to the required working depth so that the head does not rub against the ground. When setting the arms of the balance lever A, it is required to make sure that the teeth fit together and that the screw **S** is tightened accordingly.

The side distance of the disk coulter from the plough body should be about 1 to 3 cm and it should stick out above the ploughshare of the fertilizer back-filler. This distance may be set by turning the head of the disk coulter C. The head can be turned after the belt D is loosened. To loosen and tighten the belt, use the tension of the bolt that is far from the head of the disk coulter C (greater grip).

The side deflection of the coulter is set by stopper B. The disk coulters are mounted to holder H according to the distance in the forward direction when there is a larger quantity of residues during harvest.

5.3.9 Fertilizer Back-filler

The fertilizer back-fillers are set so that the working depth is about 1/3 of the depth of ploughing. They can be set deeper when there is a larger quantity of residues during harvest. If the fertilizer back-filler is disruptive when there is a larger quantity of residues after harvest, it can be easily removed by loosening two bolts.

It is not recommended to use the back-filler in rocky oils (there is not protection against rocks).

6. MAINTENANCE AND REPAIRS OF THE MACHINE

⚠ **Observe the safety instructions for maintenance and treatment.**

- If you have to use welding during a repair and have the machine connected to the tractor, make sure that all supply cables are disconnected from the alternator and accumulator.
- Check that all screws and other assembly points are tight before each use of the machine and whenever needed.
- Regularly check the wear and tear of the working parts of the machine or replace the worn working parts with new ones.
- Adjusting, cleaning and lubricating the machine may only be performed when the machine is standing still (the machine is stopped and is not working).
- Immediately remove any plant and other residues collected on the bearing shaft, otherwise the bearing will get damaged.
- When lubricating bearings, be cautious not to damage them.
- When the machine is lifted, use an appropriate supporting device propped at designated places or at appropriate places.
- When adjusting, cleaning, maintaining and repairing the machine, secure those parts of the machine that could put the operator in danger by fall or other movement.
- For attaching the machine when manipulating it with the use of lifting equipment, use only places marked by stick-on labels with the symbol of a chain „ ⛓ “.
- If there is a defect or damage on the machine, immediately turn off the tractor engine and secure the engine from turning on, secure the machine against movement ⇒ then you can remove the defect.
- When repairing the machine, use only original spare parts, suitable tools and protective equipment.
- Keep the machine clean.
- When lowering the machine down, be cautious not to drop it on the reinforced surface as it could damage the chisels and ploughshares.

☞ **Do not use a high-pressure cleaner or direct water jet for cleaning hydraulic rollers and bearings. The bearings and seals are not waterproof under high pressure.**

7. STORING THE MACHINE

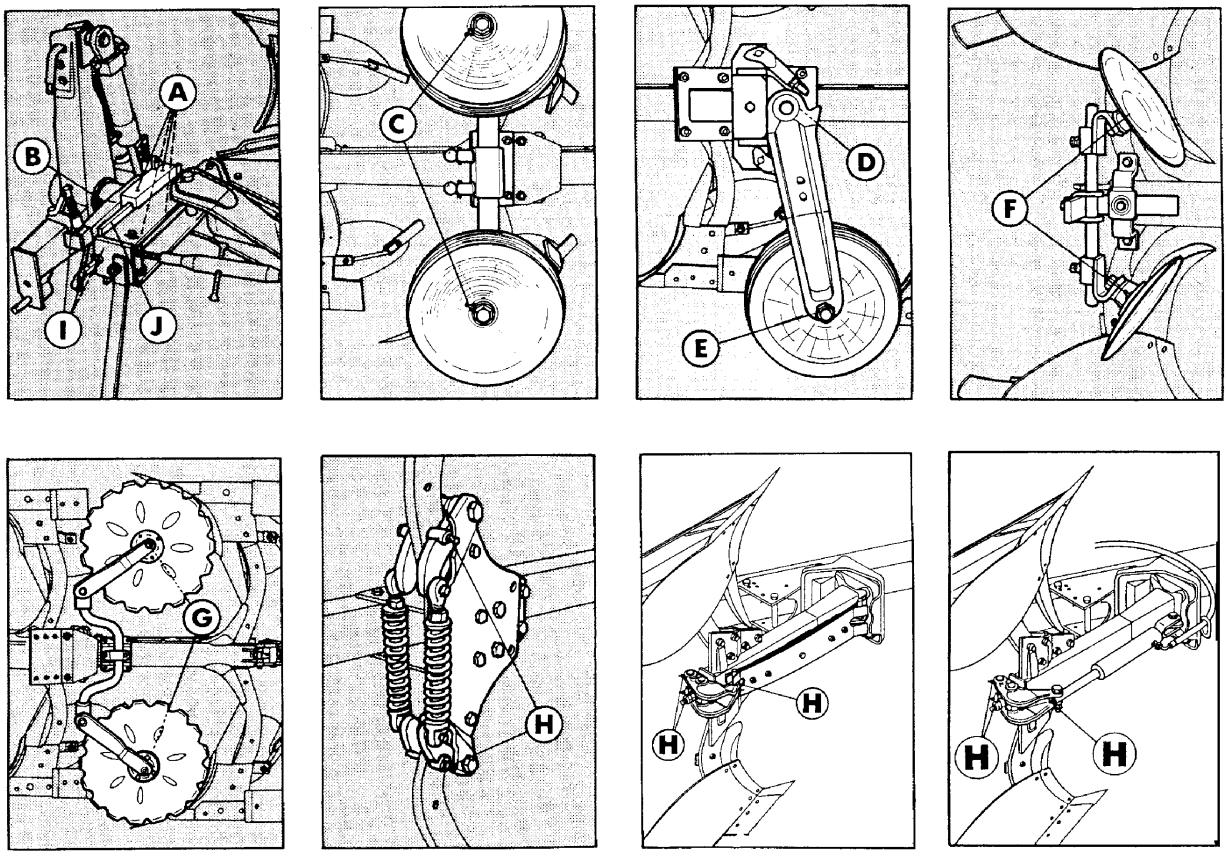
When you put the machine out of operation for a longer-period of time:

- Store the machine under a roof, if possible.
- Store the machine on an even and solid ground with sufficient bearing capacity.
- Clean the machine before storing and make sure that the machine is not damaged during the storage. Pay special attention to all labelled lubricating places and lubricate the machine according to the lubrication plan.
- Apply grease to the spindles, sliding surfaces and ploughshares.
- Leave the machine on the side to ensure sufficient stability!

- Prevent access by unauthorised persons to the machine.

8. LUBRICATION PLAN FOR THE MACHINE

➢ Observe safety regulations when providing maintenance and lubricating the machine.
➢ Regularly lubricate points **A**-**H** using a force feed lubricator (grease squirt) and regularly apply a layer of grease to the spindles and sliding surfaces **I** and **J**.



Using high-quality lubricating grease increase the service life of the machine!

Manipulation with lubricants:

Protect yourself from direct contact with oils by using gloves or protective lotion.
Wash oil stains on skin thoroughly with warm water and soap. Do not clean the skin with petrol, diesel oil or other dissolving agents.
Oil is poisonous. If you swallow any, immediately seek a doctor.

➢ Keep lubricants out of reach of children.

9. PROTECTION OF ENVIRONMENT

- Dispose of oils and fats according to valid acts and regulations on wastes.

10. DISPOSAL OF THE MACHINE AFTER THE END OF ITS SERVICE LIFE

- The operator must make sure that the steel parts and parts in which the hydraulic oil or lubricant is used are separated for disposal.

- The operator will cut the steel parts according to safety regulations and hand them over to the scrap yard for secondary raw materials. For other parts follow the valid acts on wastes.

11. MAINTENANCE AND TERMS OF WARRANTY

11.1 MAINTENANCE

Maintenance is provided by a business representative after a consultation with the Producer or by the Producer. Spare parts are provided through the sales network of individual sellers all over the Czech Republic. Use only spare parts according to the Spare Parts Catalogue officially published by the Producer.

11.2 WARRANTY

11.2.1 The Producer provides 24-month warranty for the following parts of the machine: main frame, axle and pole of the machine. The Producer provides 12-month warranty for the remaining parts of the machine. The warranty starts on the date of the sale of the new machine to the end consumer (user).

11.2.2 The warranty applies to hidden defects that appear during the proper use of the machine during the warranty period and according to the terms and conditions stated in the Operating Manual.

11.2.3 The warranty does not apply to spare parts that can be worn out, i.e. to regular wear and tear of replaceable working parts (shares, blades etc.).

11.2.4 The warranty does not apply to indirect consequences due to potential damage, such as decrease in the usable life etc.

11.2.5 The warranty is related to the machine and does not cease to exist when the owner changes.

11.2.6 The warranty is limited to disassembly and assembly, or replacement or repair of the faulty part. The contractual service of the company Farmet a.s. decides whether the faulty part will be replaced or repaired.

11.2.7 Only the authorized service technician of the Producer may perform repairs or other interventions in the machine during the warranty period, otherwise the warranty will not be accepted. This provision does not apply to the replacement of spare parts that can be worn out (see Item 11.2.3).

11.2.8 The warranty is conditioned by the use of original spare parts of the Producer.

Prepared by: Technický útvar, Farmet a.s., Jiřinková 276, Česká Skalice 552 03,
On 1 April 2014, Changes Reserved.

Farmet a. s.
Jiřinková 276
ČESKÁ SKALICE 552 03

Tel.: +420 491 450 140
Fax.: +420 491 450 136
GSM.: +420 774 715 738

LETTER OF WARRANTY

MACHINE MODEL: .....

YEAR OF PRODUCTION/SERIAL NUMBER:

INSPECTION CONFIRMATION:

ADDRESS (BUYER):

ADDRESS (SELLER):

TERMS OF WARRANTY:

I. The Producer provides 24-month warranty for the following parts of the machine: main frame, axle and pole of the machine. The Producer provides 12-month warranty for the remaining parts of the machine. The warranty starts on the date of the sale of the new machine to the end consumer (user).

II. The warranty applies to hidden defects that appear during the proper use of the machine during the warranty period and according to the terms and conditions stated in the operating manual.

III. The warranty does not apply to spare parts that can be worn out, i.e. to regular wear and tear of replaceable working parts (shares, blades etc.).

IV. The warranty does not apply to indirect consequences due to potential damage, such as decrease in the usable life etc.

V. The warranty is related to the machine and does not cease to exist when the owner changes.

VI. The warranty is limited to disassembly and assembly, or replacement or repair of the faulty part. The contractual service of the company Farmet a.s. decides whether the faulty part will be replaced or repaired.

VII. Only an authorized service technician of the Producer may perform repairs or other interventions in the machine during the warranty period, otherwise the warranty will not be accepted. This provision does not apply to the replacement of spare parts that can be worn out (see Item III).

VIII. The warranty is conditioned by the use of original spare parts of the Producer.

CONFIRMATION OF THE MANUFACTURING PLANT

SELLER'S CONFIRMATION

DATE

DATE OF FIRST SALE

2014/002/01

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

1. (CZ)My (GB)We (D)Wir (F)Nous (RU)Мы (PL)My:

Farmet a.s.
Jiřinková 276
552 03 Česká Skalice
Czech Republic
DIČ: CZ46504931
Tel/Fax: 00420 491 450136

(CZ)Vydáváme na vlastní zodpovědnost toto prohlášení. (GB)Hereby issue, on our responsibility, this Certificate. (D)Geben in alleiniger Verantwortung folgende Erklärung ab. (F)Publions 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	:	**Pluh**
(GB)Machine:	- name	:	**Plough**
(D)Fabrikat:	- Bezeichnung	:	**Pflug**
(F)Machinerie:	- dénomination	:	**Charrue**
(RU)Сельскохозяйственная машина:	- наименование	:	**Плуг**
(PL)Urządzenie maszynowe:	- nazwa	:	**Plug**
	- typ, type	:	**VIDIUM**
	- model, modèle	:	**P350, P350 OnLand, P350 Vario, P 450, P450 OnLand**
	- (CZ)výrobní číslo	:	
	- (GB)serial number		
	- (D)Fabriknummer		
	- (F)n° de production		
	- (RU)заводской номер		
	- (PL)numer produkcyjny		

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

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

(CZ)Schválil (GB)Approve by
(D)Bewilligen (F)Approuvé
(RU)Утвердил (PL)Uchwalił

dne: 01.04.2014

p. Gavlas Dušan
technický ředitel
Technical director

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

V České Skalici

dne: 01.04.2014

Ing. Karel Žďárský
generální ředitel společnosti
General Manager