

OPERATING MANUAL

FALCON HW



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Dear customer,

The agricultural machine you have purchased is a high-quality product of Farmet a.s. Česká Skalice.

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

The serial number of the machine is punched on the production label and written in the operating manual (Your Machine Characteristics). This machine serial number must be stated whenever ordering spare parts for possible repairs. The production label is located on the frame .

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

Possibilities of use of your machine

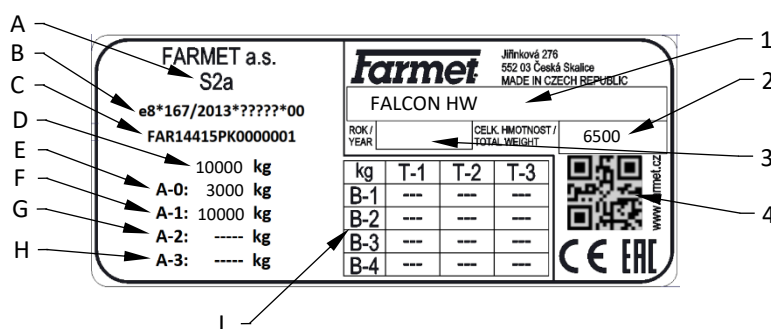
Hopper wagons are designed to operate with trailed implements via the three-point linkage and to dispense granular fertilizer or seed from the hopper into the airflow. Specific application conditions for individual fertilizers and crops are provided later in this manual.

The machine is intended for aggregation with tractors with an output of at least 200 kW, depending on soil conditions and the attached implement.

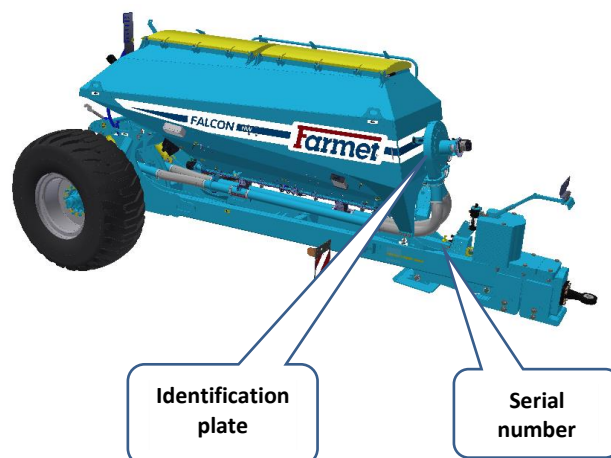
The optimal working speed should be determined based on the trailed implement, typically between 6 and 15 km/h.

The machine allows the application of up to two different fertilizers or seeds

Self adhesive statutory plate **FALCON HW**



A	Vehicle category according to EU Nr. 167/2013
B	Approval number
C	Seventeen-digit serial number (VIN)
D	Technically permissible maximum laden mass of the vehicle
E	Maximum vertical load on the coupling point
F	Permissible load – axle1
G	Permissible load – axle 2
H	Permissible load – axle 3
J	Technically permissible towable mass for each chassis/braking configuration for R or S category vehicle
1	Commercial name, general description and purpose
2	Total weight
3	Year of production
4	QR code , Model identification



OBSAH

1.	MACHINE LIMIT PARAMETERS	5
1.1	Technical parameters	5
1.2	Safety information	6
A.	GENERAL INSTRUCTIONS FOR USE	6
1.3	Protective equipment	7
B.	MACHINE TRANSPORT USING TRANSPORT MEANS	7
C.	MACHINE HANDLING USING LIFTING EQUIPMENT	8
D.	MACHINE TRANSPORT ON ROADS	9
E.	WORK SAFETY LABELS	9
2.	DESCRIPTION	13
2.1	Working parts of the machine	13
2.2	Filling the fertilizer hopper	14
2.3	Description of the hopper	15
2.4	Starting and lifting the three-point hitch (TBZ)	16
3.	MACHINE ASSEMBLY AT THE CUSTOMER	17
4.	COMMISSIONING	17
4.1	Agregation to a tractor	18
4.2	Hydraulic connection	19
4.3	Function of hydraulic valves	20
4.4	Hydraulic diagram of the machine	21
4.5	Requirements for hydraulic oil	22
4.6	Machine brake system	23
4.7	Connecting the electronic control unit	28
4.8	Connection of the fan hydraulic drive	29
4.9	Connection of the hydraulic fan drive with separate PTO drive	32
4.10	Flow adjustment in the distributors circuit (green circuit)	33
4.11	Permissible loads	34
5.	MACHINE ELECTRONIC SYSTEM	35
5.1	Switching on and off the distributors	36
5.2	Speed measurement	38
5.3	Description of the main screen	39
5.5	Configuration of attached machine geometry	40
5.6	Information data	41
5.7	Creating a job	41
5.8	Product database	42
5.9	Fertilizer level in the hopper	43
5.10	Fertilizer loading settings	44
5.11	Fertilization with raised Three-Point Hitch (TBZ)	45
5.12	Work Lights	45
5.13	Hopper cleaning	45
6.	RATE SETTING	46
6.1	Rate adjustment	47
6.2	Calibration test	48
6.3	Auger dispenser for fertilizer application	49
7.	FAN SPEED SETTING ACCORDING TO FERTILIZER TYPE	50
8.	Machine Adjustment	51

8.1	Drawbar height above ground	51
8.2	Three-point hitch adjustment.....	52
8.3	Depth adjustment of the carried machine	55
8.4	Adjustment for semi-mounted machines	56
8.5	Tightness of the pressurized hopper	58
8.6	Field Operation Guidelines	60
9.	Fertilization Shutdown	61
10.	FARMET HYDRAULIC SYSTEM	62
10.1	System Description	62
10.2	System Wiring Diagram	63
10.3	Component Description	65
10.4	Hydraulic Block	65
10.5	Power Supply	66
10.6	Emergency Mode.....	66
11.	MAINTENANCE PROCEDURE	67
11.1	Speed Sensor Adjustment.....	67
11.2	Pressure Oil Filter.....	67
11.3	Adjustment of the Lower Link Position Indicator	67
11.4	Brake Adjustment	68
11.5	Auger Cover Height.....	68
12.	Technical data	69
12.1	Lower Link Load Table	69
13.	ERROR MESSAGES	70
14.	TROUBLESHOOTING	72
15.	MACHINE MAINTENANCE AND REPAIRS.....	74
15.1	Maintenance plan	75
15.2	Machine Lubrication Plan	79
15.3	Lubricant handling	79
15.4	Tire pressure	80
15.5	Recommended Tightening Torques.....	80
16.	SHUTTING DOWN THE MACHINE.....	80
17.	ENVIRONMENTAL PROTECTION	80
18.	END OF LIFE MACHINE DISPOSAL.....	80
19.	SERVICING AND WARRANTY CONDITIONS.....	81
19.1	Servicing.....	81
19.2	Waranty	81

1. MACHINE LIMIT PARAMETERS

- The machine is intended to work with trailed implements via the three-point linkage and to dispense granular fertilizer from the hopper into the airflow in aggregation with an agricultural wheeled or tracked tractor. Any other type of use exceeding the specified purpose is prohibited.
- The machine is only operated by one person – the tractor driver.
- Machine operator must not use the machine in a different way, especially:
 - Transport of persons and animals on the machine structure,
 - Transport of burdens on the machine structure,
 - Aggregation of the machine with another towing equipment than stated in Chapter 4.1.

1.1 Technical parameters

Tab. 1 – technical parameters

PARAMETERS	FALCON HW	
Hopper capacity (distribution ratio 45 : 55) (l)	5 000	8 500
Transport width (mm)	3 000	
Transport height (mm)	2 800	3 600
Total length of the machine (excluding the implement) (mm)	6 700	
Filling height of the hopper (mm)	2 700	3 400
Filling hole size (m)	1,41x0,62	
Towing device (kW/HP)	200 / 270	
Working speed (km/h)	6 – 15	
Maximum transport speed (km/h) ⁽¹⁾	30	
Maximum slope accessibility (°)	6	
Tire size	650/65-30,5	
Brake type / distribution ⁽¹⁾	Air brake / Dual-line	
Required pressure for brake control (kPa)	8,5	
Number of hydraulic circuits / pressure/ (bar)	5 / 200	
Type of quick couplings/ type	8 / ISO 12,5	
Pressureless return flow (max. 5 bar)	1 / ISO 20	
Hydraulic fan oil flow (l/min)	30 - 40	
Oil flow for machine control (l/min)	50 - 60	
Electrical system requirement	12 V DC / 40 A	
Tractor hitch requirement	C50, C70, K80	
Weight of machine (kg)**	6 500	6 850

** The weight of the machine varies depending on the equipment

Technical warning!

¹⁾ **Transport/Brake system:** Observe the national regulations applicable to the transport of machines on public roads. Check the legal regulations in force in the country and the regulations on the maximum permissible gross weights and axle loads, as well as on the necessary use of the brake system. If you have further questions, please contact our sale representative..

1.2 Safety information



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** 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** Operate the machine only when it is in technically sound condition, in accordance with its intended use, with full awareness of potential hazards, and in compliance with the safety instructions provided in this user manual. The manufacturer accepts no liability for any damage resulting from use of the machine beyond its specified limits (see page 5) or contrary to the operating instructions (see Chapter A and Chapter 3). The user assumes full responsibility for such risks. Immediately eliminate any faults, especially those that may compromise safety.
- A.3** Machine operation may be performed by a person authorised by the operator under these conditions:
- It must own a valid driver's licence of the corresponding category,
 - It must be demonstrably familiarised with the safety regulations for work with the machine and must practically master the machine operation,
 - The machine may not be operated by juveniles),
 - It must know the meaning of the safety signs located on the machine. Their respecting is important for safe and reliable machine operation.
- A.4** Maintenance and servicing repairs on the machine may only be performed by a person:
- Authorised by the operator,
 - Educated in the machinery field with knowledge of repairs of similar machines,
 - Demonstrably familiarised with safety regulations for work with the machine,
 - During a repair of a machine connected to a tractor, it must own a driver's licence of the corresponding category.
- A.5** Machine operator must secure the safety of other persons when working with the machine or transporting the machine.
- A.6** During machine work in the field or during transport, the operator must control the machine from the tractor's cabin.
- A.7** The operator may enter the machine structure only with the machine at rest and blocked against movement, namely only for these reasons:
- Adjustment of the machine working parts,
 - Repair and maintenance of the machine,
 - Release and securing of spherical valves of the axle,
 - Securing of spherical valves of the axle before folding the side frames,
 - Adjustment of the working parts of the machine after unfolding the side frames.
- A.8** 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.9** Any changes or modifications of machine may be performed only with written consent of the manufacturer. For possible damage arisen due to ignoring this instruction, the producer bears no responsibility. The machine must be maintained equipped with prescribed accessories and equipment including safety marking. All warning and

safety signs must be legible and in their places. In case of damage or loss, these signs must be immediately renewed.

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



A.11 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.



1.3 Protective equipment

For operation and maintenance use:

- tight clothes
- protective gloves and goggles against dust and sharp parts of the machine



B. MACHINE TRANSPORT USING TRANSPORT MEANS

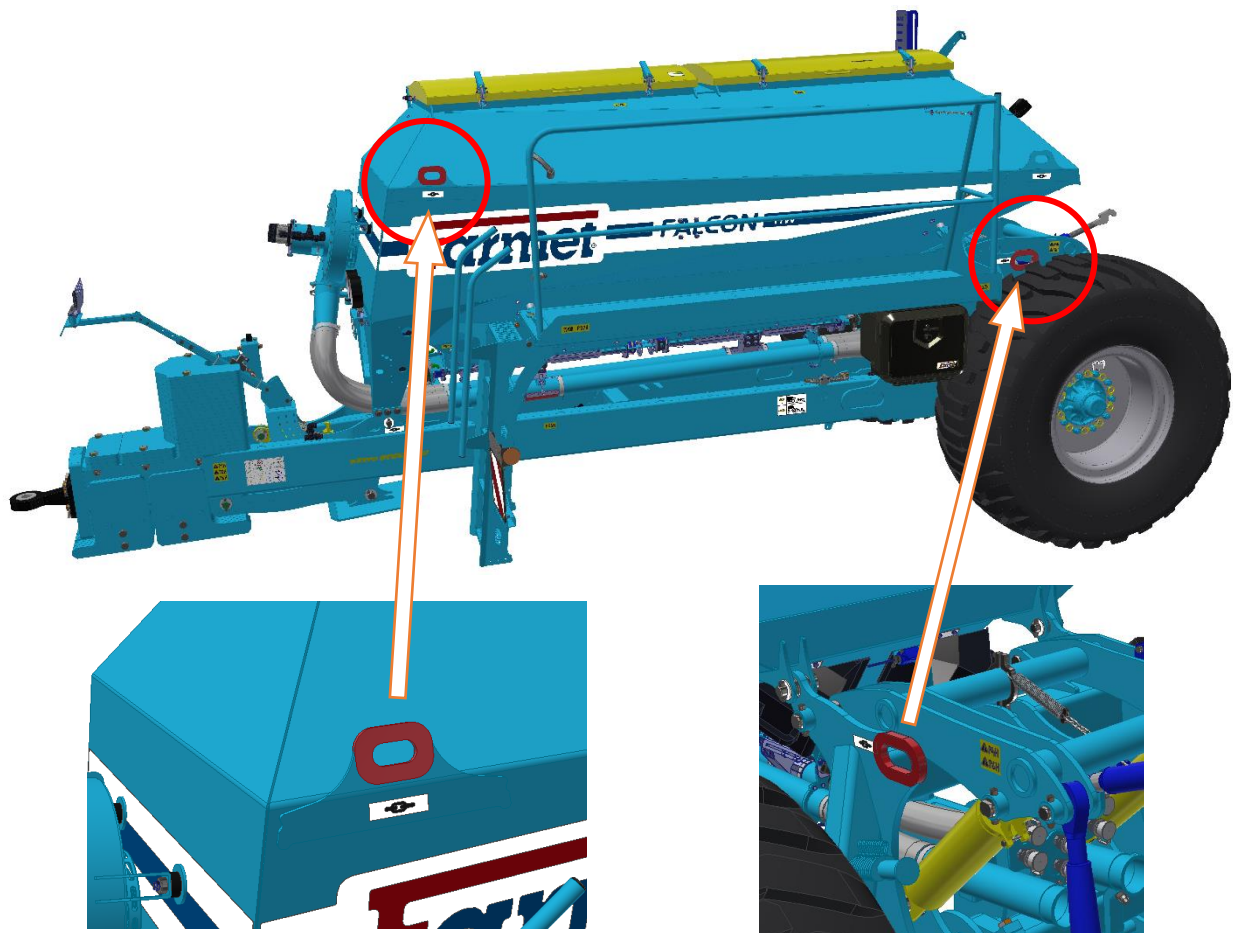
B.1 The transport means designed for machine transport must have the load capacity minimally identical with the weight of the transported machine. The total weight of the machine is stated on the production label.

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



B.3 The transported machine must be always fastened to the transport means so that its spontaneous loosening could not happen.

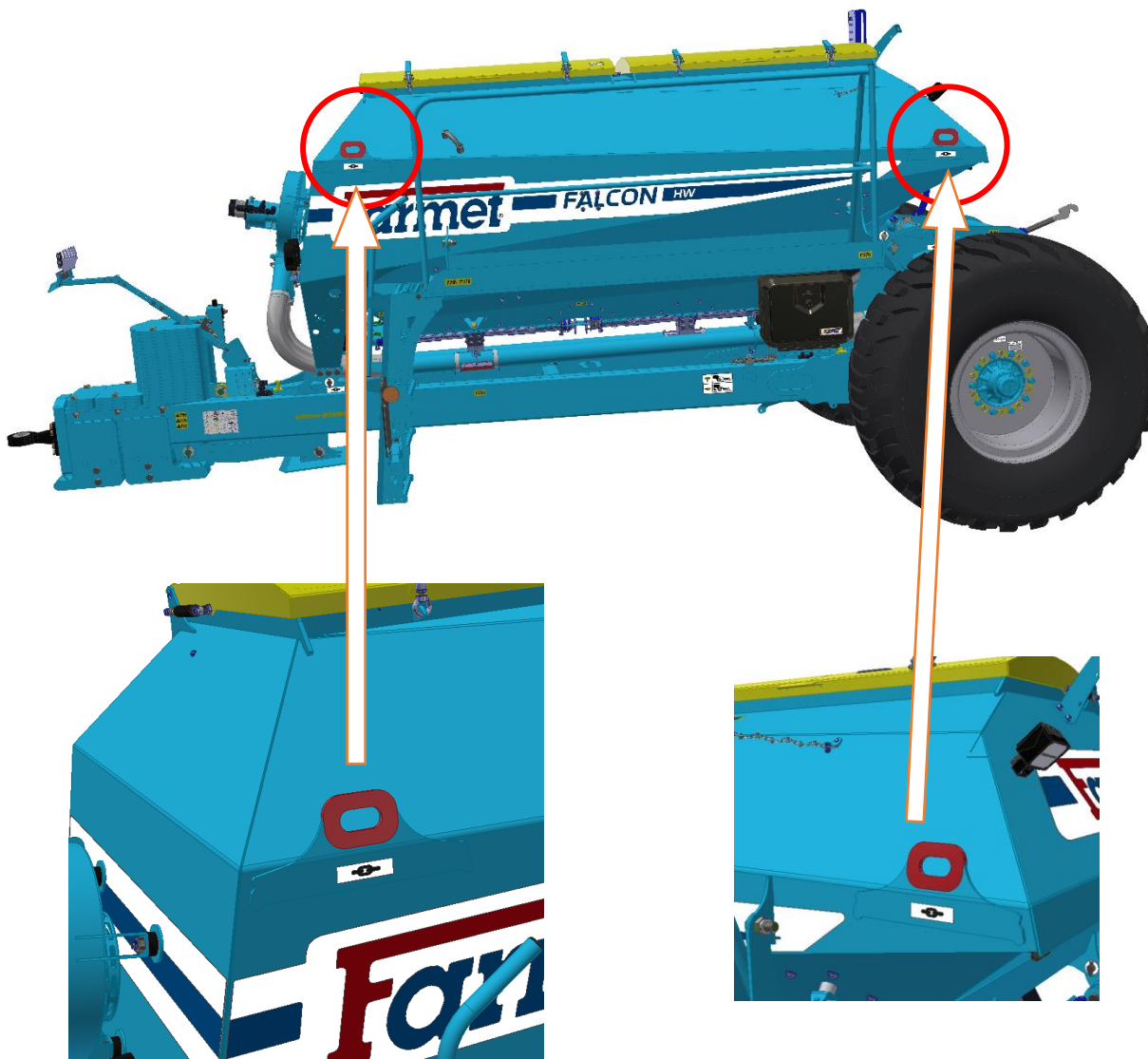
B.4 The carrier is responsible for damage caused by the loosening of incorrectly or insufficiently fastened machine to the transport means.



C. MACHINE HANDLING USING LIFTING EQUIPMENT



- C.1 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 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 After fastening (suspending) at designated points, it is forbidden to move in the space of possible reach of the handled machine.
- C.4 The machine may only be handled when the hopper is empty and no implement is attached.



D. MACHINE TRANSPORT ON ROADS

Transport position of **FALCON HW**



- Connect the machine to the tractor by means of the hitch system (C50, C70, K80).
- Attached machines must be folded into the transport position.
- For all machines, the drawbar and axle loads must not exceed the values specified in the corresponding chapter 4.6.2
- 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.



- Due to the dimensions of the machine, the operator must exercise increased caution and consideration for other road users.
- During road transport, the operator must secure the arms of the rear three-point hitch of the hopper wagon in the transport position, i.e., prevent any unexpected lowering of the arms. At the same time, the rear hitch arms must be locked against lateral movement.
- Set the tractor's hydraulic circuit control units to the locked position.



- **It is strictly forbidden to transport people or cargo on the machine or to attach other machine, trailer or attachments to the machine.**
- **The hopper must be empty when driving on public roads.**
- Maximum transport speed limit on public roads is **30 km/hour**.
- **Prohibition of operation in reduced visibility!**



The machine can be operated on roads only if it is equipped with air brakes (the customer will receive a technical certificate). Otherwise, the machine must not be operated on public roads!

E. WORK SAFETY LABELS


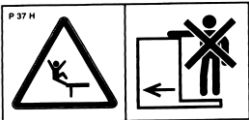




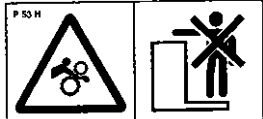
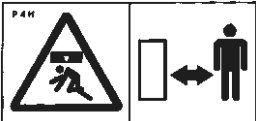


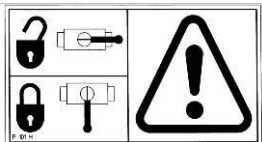
Safety warning labels are used to protect operator.

In general:

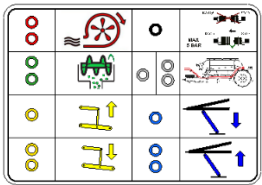
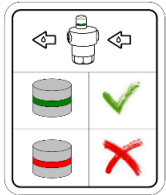
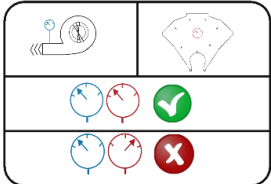
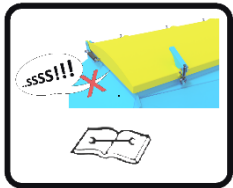


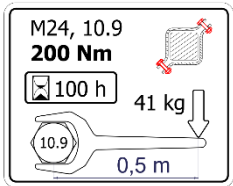
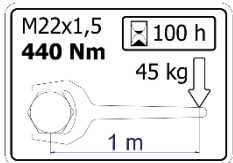
- A) Strictly observe the safety warning labels.
- B) All safety instructions also apply to other users.
- C) If the Safety label on the machine is damaged or destroyed, the OPERATOR MUST REPLACE THIS LABEL WITH A NEW!!!

The position, appearance and the exact meaning of the occupational safety labels on the machine are determined in the following tables (tab.2, 3/ page 10-11) and on Figure (Figure 1,2/ page 12).

Tab. 2 – Self-adhesive safety warning labels are located on the machine

SAFETY LABEL	MEANING OF LABELS	LABEL STICKERS
	Before the manipulation with the machine ready the instructions for using. When operating, follow the instructions and safety regulations for operating the machine.	P 1 H
	Driving and transporting the machine structure is strictly forbidden.	P 37 H
	When connecting or disconnecting do not enter between the tractor and the machine nor enter this area unless the tractor and machine are stationary and the engine is switched off.	P 2 H
	Stay out of the reach of the tractor – agricultural implement when the tractor engine is running.	P 6 H
	Before beginning of the transporting secure the axle against unexpected drop.	P 13 H
	Secure the machine against unexpected movement.	P 52 H
	Do not be close to the rotating parts, unless these are not in calm position that means that they are not rotating.	P 53 H
	Stay out from the raised machine reach.	P 4 H
	Danger of crushing by moving parts of the machine – three-point hitch, support leg, covers	P 20 H
	Keep safe distance from electrical equipment when working or transporting the machine.	P 39 H
	Shown lever positions and functions of the hydraulic ball valve located on the piston rod.	P 101 H

Tab. 3 - Informační štítky

POSITIONS ON THE MACHINE	LABEL	MEANING OF LABELS
1		Identification of hydraulic circuits and their functions.
2		Indication of a contaminated oil filter element.
3		Indication of pressure in the hopper and in the pressure line. Indication of correct operation.
4		Warning to check the proper sealing of the hopper covers.
5		Attachment point for the sowing test scale.
6		Valve for switching the rear arms with the support leg, valve for aggregation with the attached implement.
7		Checking the axle tightening torque.
8		Checking the wheel tightening torque.

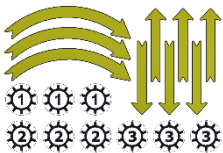
9		Identification of the metering unit number and its direction of rotation.
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Figure 1

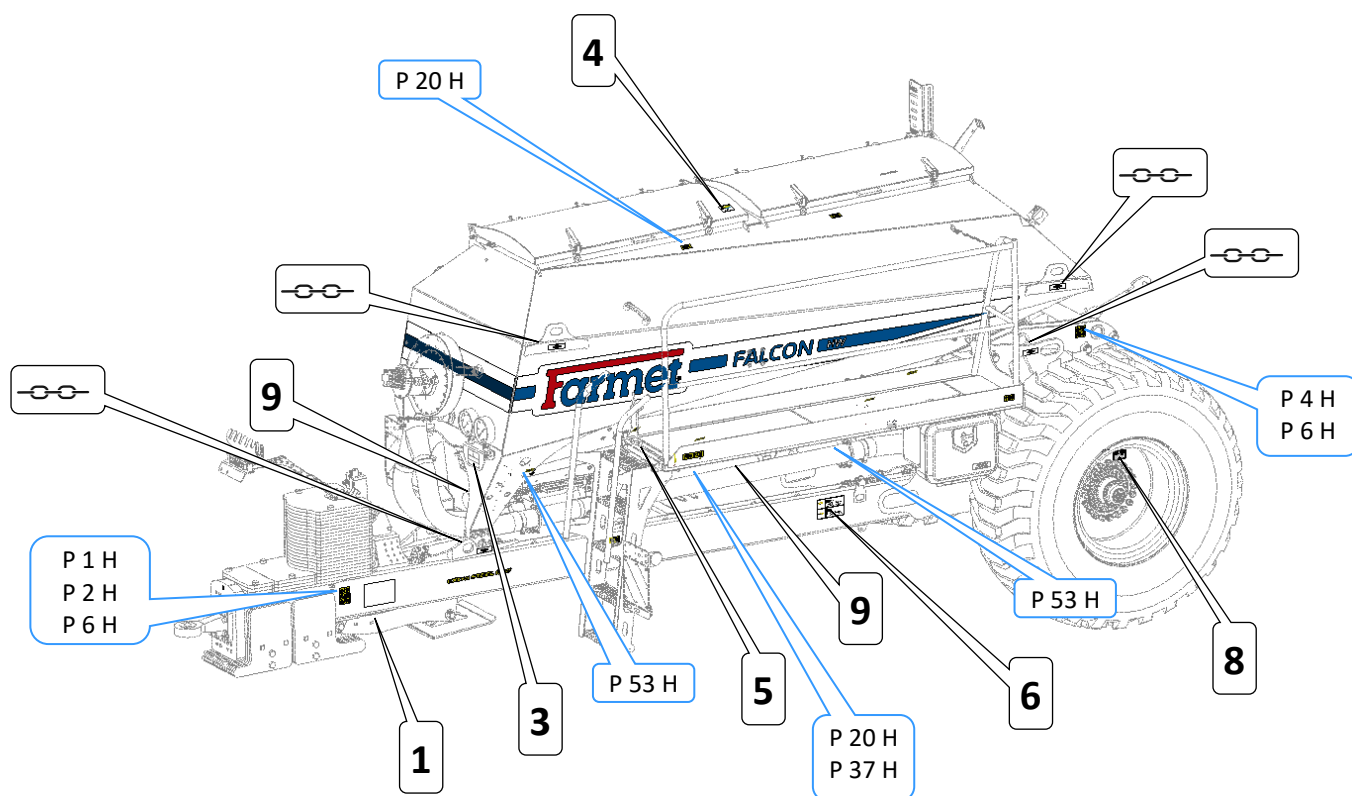
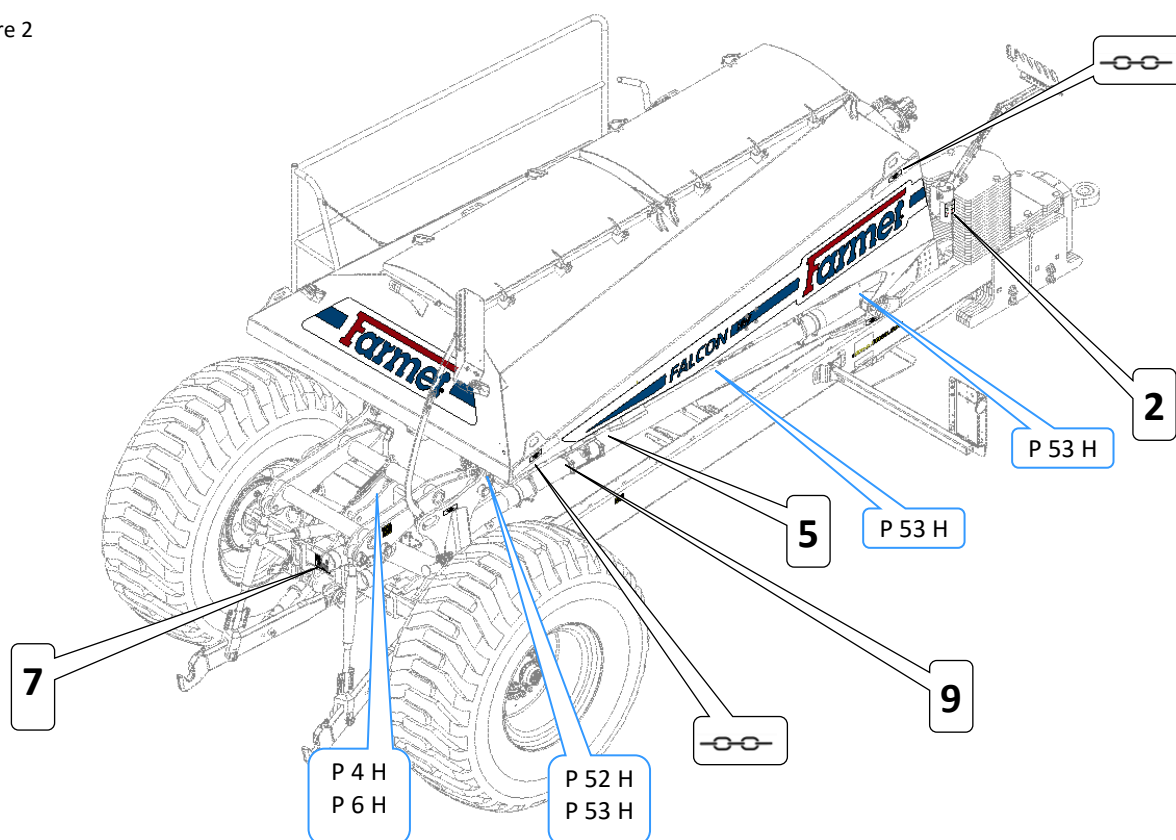


Figure 2



2. DESCRIPTION

The **FALCON HW** hopper wagon is designed as a semi-mounted machine and is connected to the tractor using a C50 or C70 eye hitch or a K80 ball hitch. It is equipped with two pressure hoppers and two screw metering units. Fertilizer or seed is conveyed by an air stream through hoses to the distributors of the attached implement, where it is deposited into the soil. The attached implement is connected via a standard Category 3 three-point hitch. The metering units and the fan transporting the fertilizer or seed are powered by hydraulic motors supplied from the tractor's hydraulic circuit. The machine's electronic system allows monitoring of functions and regulation of the seeding rate. Transport wheels may be equipped with pneumatic or hydraulic brakes.

2.1 Working parts of the machine

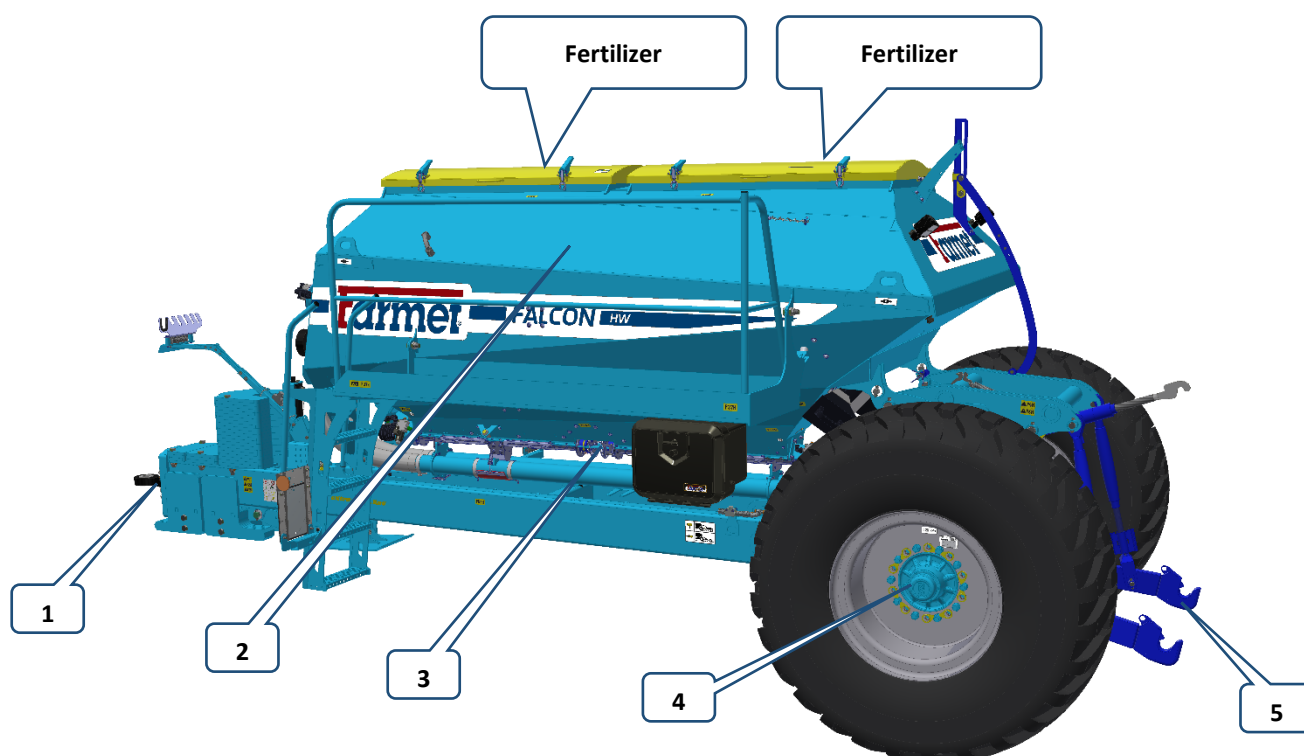


Figure 3 - Working parts of the machine

1	Drawbar with foldable support leg
2	Split hopper
3	Screw metering units
4	Axle
5	Three-point hitch (TBZ)

2.2 Filling the fertilizer hopper



- Always comply with safety regulations and guidelines when filling the hopper.
- Always switch off the fan and metering unit drives during filling.
- The machine must be disassembled and resting on the working tools on the ground during filling.
- Perform hopper filling only on a firm and level surface, and with the machine stationary.

Opening the cover

- Release the cover clamps.
- Open the hopper cover, supporting it with the strap at the center of the machine.
- Secure the open cover by pressing the mechanical stay downwards.

Closing the cover

- Release the mechanical stay upwards.
- Close the cover by pulling the strap.
- Secure the clamps, check the proper seating of the cover.

Footbridge

- Use the access ladder to reach the footbridge.
- The footbridge is intended only for operator use during hopper filling.
- Movement on the footbridge during machine operation or transport is strictly prohibited.
- The footbridge load capacity is limited to a **maximum of 3 persons or 280 kg!**
- Exercise increased caution when moving on the footbridge.
- **Transporting persons or cargo on the machine is strictly forbidden!**

Figure 4 – Filling the hopper

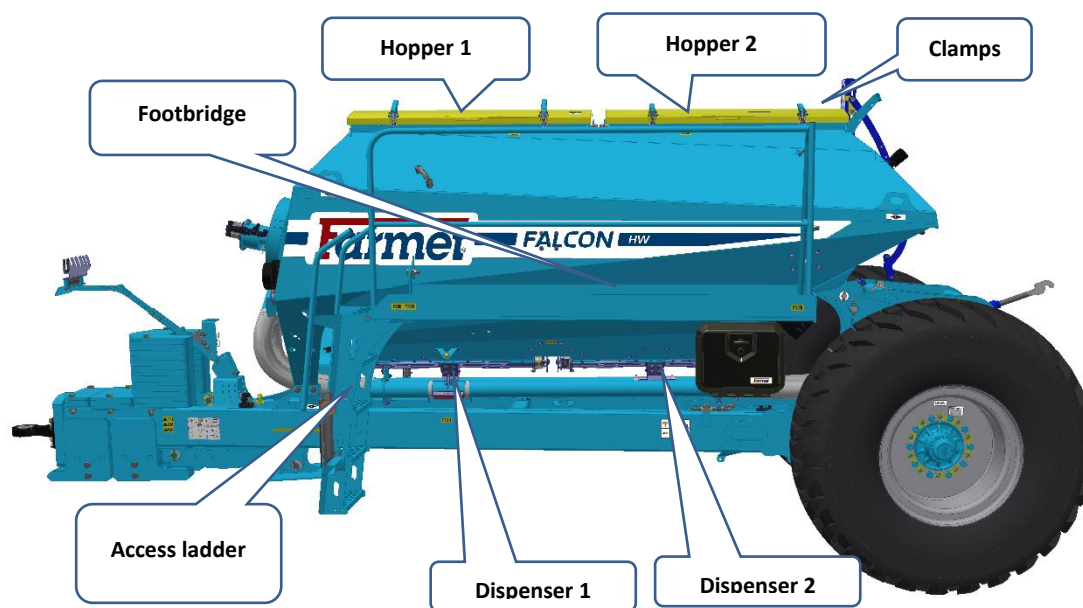
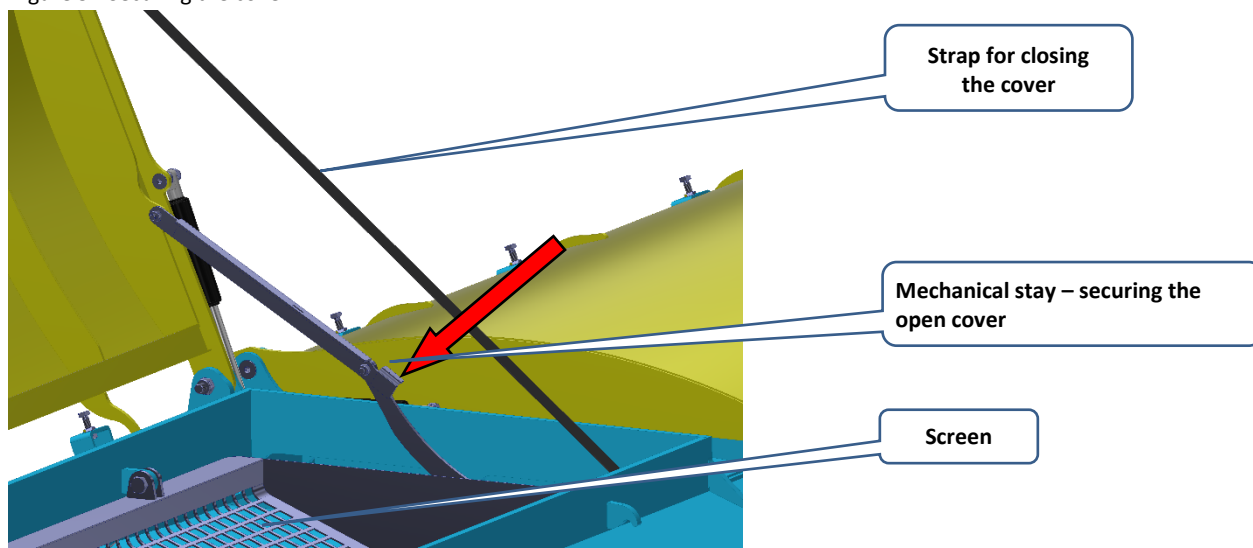
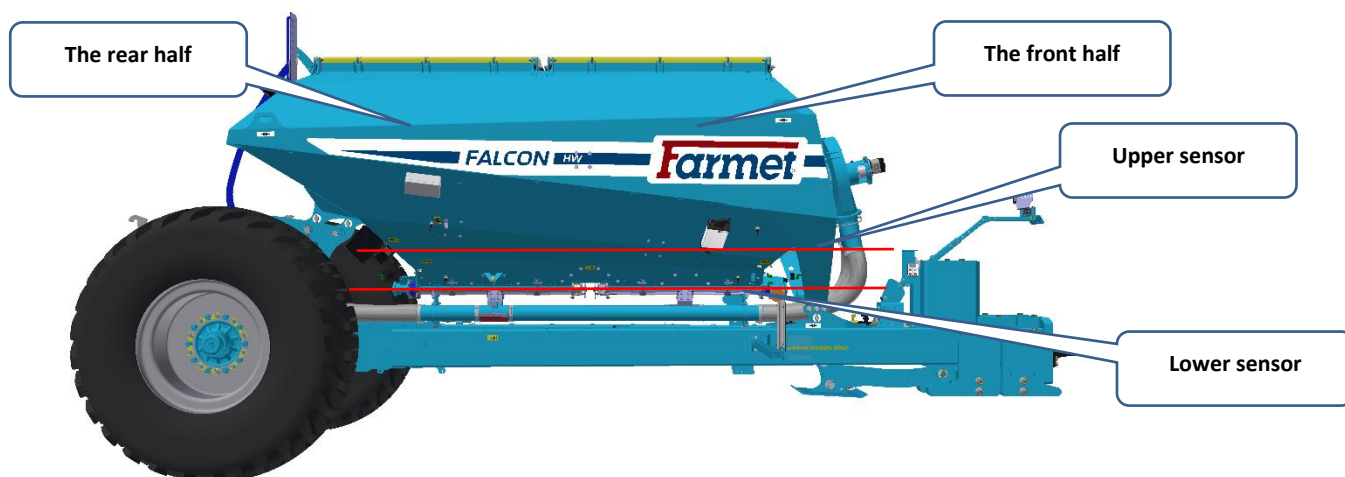


Figure 5 - Securing the cover



2.3 Description of the hopper

- The hopper capacity is approximately 5 000 l / 8 500 l
- The front half of the hopper has a volume of 45 % (i.e. 2 250 l / 3 800 l)
- The rear half of the hopper has a volume of 55 % (i.e. 2 750 l / 4 700 l)
- If the level drops below the sensor, an alarm will appear on the monitor
- When the upper sensor is triggered (low hopper level), approximately 10% of the fertilizer volume remains
- When the lower sensor is triggered, the hopper is empty
- Each half of the hopper has its own sensors
- Both lids are equipped with a hinged screen



Tab. 4 - Approximate weight of fertilizer in the hopper

Fertilizer	Bulk density (kg/m ³)	Approximate weight of a full hopper 5 000 l (kg)	Approximate weight of a full hopper 8 500 l (kg)
NKP	1 150	5 750	9 780
Amofos	900	4 500	7 650
Urea	700	3 500	5 950

Values are approximate only

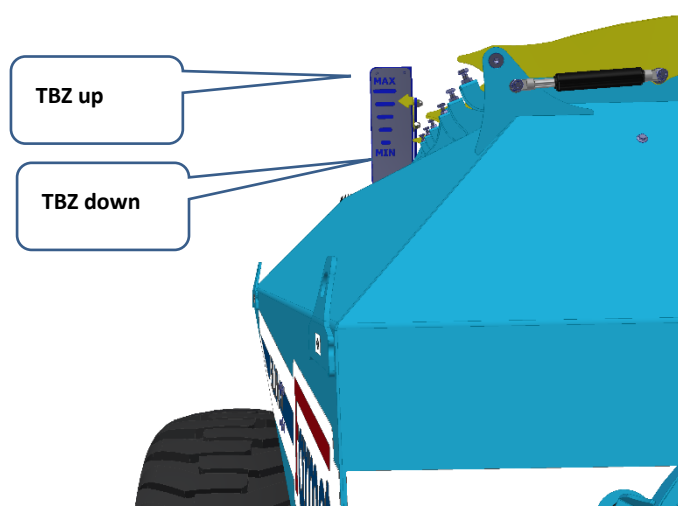
2.4 Starting and lifting the three-point hitch (TBZ)

- The hopper trailer is equipped with a standard category 3 three-point hitch
- Lifting is controlled by the yellow hydraulic circuit
- The lifting speed can be adjusted by changing the flow rate to the circuit
- The maximum lifting force at the end of the lower links throughout the entire lifting range is 105 kN.
- Description and adjustment of the hitch are provided in chapter 8.2
- During transport on public roads, the valve for lifting the TBZ (yellow circuit) must be closed.
- No persons are allowed to be present in the TBZ working area during lifting operation
- During operation, the TBZ lifting circuit must be in floating position

2.4.1 TBZ position indicator

- The position of the three-point hitch (TBZ) is visible on the indicator (Figure 6)
- The upper and lower positions are correctly set from the factory
- Adjustment instructions are provided in chapter 11.3

Figure 6 - TBZ position indicator



3. 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“.

4. COMMISSIONING



- Before taking over the machine, test and check, whether damage occurred during transport and whether all parts contained in the bill of delivery were supplied.
- Before commissioning the machine, carefully read this operating manual, especially Chapters **A-E** pages 6-12. Before the first use of the machine, familiarise yourselves with its controls and overall function.
- During work with the machine, observe not only the instructions of this operating manual but also generally valid regulations of work safety, health protection, fire and transport safety, and environmental protection.
- The operator must check the machine before every use (commissioning) from the standpoint of completeness, work safety, work hygiene, fire safety, transport safety, and environmental protection.
A machine showing signs of damage must not be commissioned.
- Aggregation of the machine with the tractor is to be performed on a flat and hardened surface.
- When working on slopes, observe the lowest slope grade of the set **TRACTOR - MACHINE**.
- Before starting the tractor motor, check whether no person or animal is in the working space of the set and push the warning sound signal.
- The operator is responsible for the safety and all damage caused by the operation of the tractor and the connected machine.
- The operator is obliged to adhere to the technical and safety regulations of the machine determined by the producer when working.
- When turning the machine at headland, the operator must lift the machine, i.e. the working bodies are not in the ground.
- The operator is obliged to lower the machine to the ground and secure the set against movement before leaving the tractor cabin.

4.1 Agregation to a tractor

- The machine can be connected only to a tractor, whose curb weight is identical or higher than the overall weight of the connected machine.
- The machine operator must observe all generally valid regulations of work safety, health protection, fire safety, and environmental protection.
- The operator may only attach the machine to a tractor equipped with a bottom hitch or a rear two-point hitch (according to the version of the machine) and with a functional and intact hydraulic system.
- The tractor's three-point hitch must be adjusted before each drive to a position where it does not collide with the drawbar weight, even during turning or when driving over uneven terrain. If necessary, it may need to be removed.
- The table of requirements for the towing means for work with the machine:

Tab. 5

Requirement for the tractor engine power for FALCON HW		200 kW*
Tractor hitch requirement	Lower fixed hitch coupling mechanism	Pin Ø50 mm (1,96 in)
		Pin Ø70 mm (2,75 in)
		Ball hitch K80
Requirement for the hydraulic system of the tractor	TBZ lifting	Pressure in the circuit 200 bar, 2 pcs quick coupling sockets ISO 12,5
	Support leg	Pressure in the circuit 200 bar, 2 pcs quick coupling sockets ISO 12,5
	Electrical panel circuit	Pressure in the circuit 200 bar, 2 pcs quick coupling sockets ISO 12,5
	Hydraulic drive circuit of the fan	Pressure in the circuit 200 bar, 1 quick coupling socket ISO 12,5
	Hydromotor drive of the dosing units	Pressure in the circuit 200 bar, 1 quick coupling socket ISO 12,5
	Return flow	Pressure in the return line max. 5 bar, 1 quick coupling socket ISO 20
Tractor air system requirement (if the machine is equipped with brakes)	Machine axle braking circuit	Pressure in the circuit min.6 bar – max. 15 bar, 2 pcs coupling heads for dual-circuit brakes
Tractor electrical system requirement	Connection of the machine's electronic system	12V / 40 A

* The actual engine power requirement may vary significantly depending on the working depth, soil conditions, and similar factors




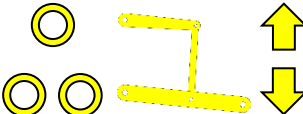
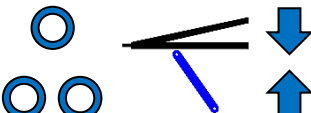
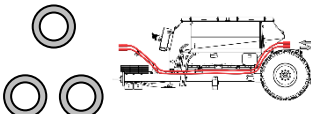


No persons must remain in the area between the tractor and the machine during the connection process.

4.2 Hydraulic connection


- Connect the hydraulics only when the hydraulic circuits of both the machine and the tractor (aggregate) are depressurized.
- The hydraulic system operates under high pressure. Regularly check for leaks and visible damage on all lines, hoses, and fittings, and repair immediately.
- Use only appropriate tools and equipment when searching for and repairing leaks.
- o connect the machine's hydraulic system to the tractor, use quick coupling plugs (on the machine) and sockets (on the tractor) of the same type. Connect the machine's quick couplings to the tractor's hydraulic circuits according to Table 6.
- Check the filter contamination regularly, at least once a week, see chapter 11.2

Tab. 6 - Hydraulic circuit connections and oil flow adjustment

Circuit	Marking	Adjusted oil flow	Control lever position during operation	Control lever position during transport
Fan hydraulic drive		20 – 40 l/min*	Continuous flow	Locked
Hydraulic motors of the distributors		10-25 l/min*	Continuous flow	Locked
Return flow		-	-	-
Lifting of the three-point hitch (TBZ)		40 – 100 l/min	Floating position	Locked
Support leg (connected to the yellow circuit)		10 – 15 l/min	Neutral position	Locked
Circuits for the attached machine		10 – 80 l/min	According to the implement (attached machine)	Locked

* Important for proper function; detailed information can be found in chapters 4.8 and 4.9

 **To prevent unintentional or unauthorized movement of the hydraulics (by children, passengers, or other persons), the control valves on the tractor must be secured or locked when not in use or during transport, and the control unit must be switched off.**

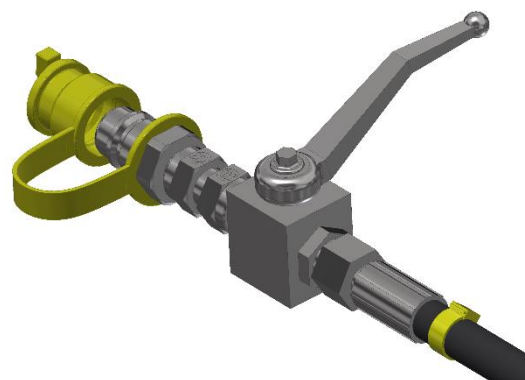
 **Parts of the machine's hydraulic system that are under pressure must not be disassembled. Hydraulic oil penetrating the skin under high pressure can cause severe injuries. In case of injury, seek medical attention immediately.**

4.3 Function of hydraulic valves

Shut-off valve of the yellow circuit

- It is located on the hose behind the quick coupling to the tractor
- In the closed position, it prevents the equipment raised on the three-point hitch (TBZ) from lowering
- It serves to close the yellow circuit during transport on public roads





Figure 7 - Yellow circuit shut-off valve



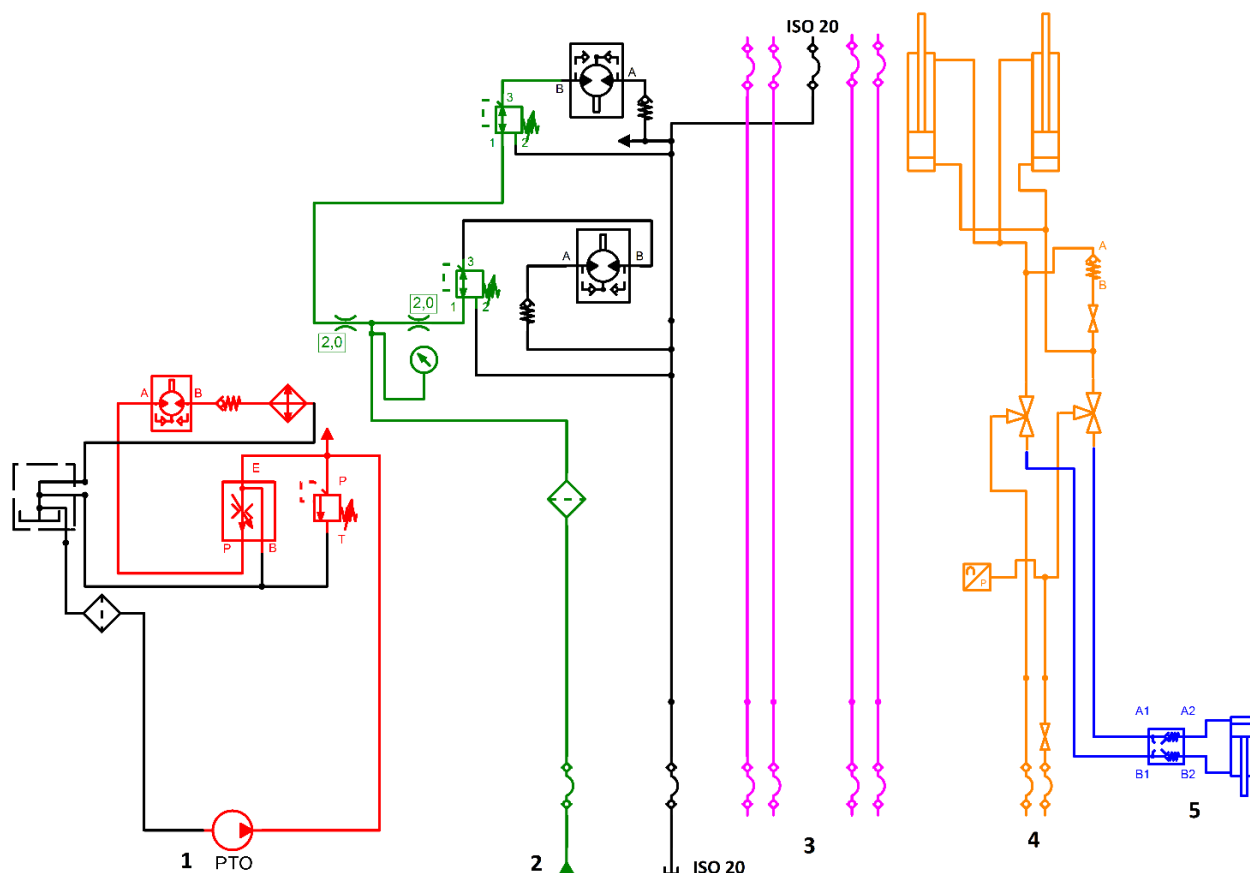
Aggregation valve

- Located on the left side of the machine frame, in front of the axle

Tab. 7 - Aggregation valve

It serves for machine aggregation. The arms can be moved down even without the attached machine. Applying downward pressure can overload and damage the arms.		
Working position. The TBZ arms can follow the terrain.		

4.4 Hydraulic diagram of the machine



1	Fan	Red circuit
2	Drive of screw feeders	Green circuit
3	Rear quick couplings, electro-hydraulic distributor	White circuit
4	Lifting of the three-point hitch (TBZ)	Yellow circuit
5	Support leg	Blue circuit

4.5 Requirements for hydraulic oil

- The hydraulic system requires hydraulic oil with HLP46 specification according to DIN 51524
- It is also possible to use all oils commonly used as a combined filling for tractor gearboxes and hydraulics (UTTO and STOU oils)
- The oil temperature must not exceed 80°C
- If the temperature is higher, stop work immediately and switch off the drive of the feeders and the fan

Reduction of oil overheating

- Reduce the flow rate to the green circuit of the feeders (see chapter 4.9 (this is the most common issue)
- Reduce the fan speed
- Check the filter for clogging
- Inspect hydraulic components to ensure they function properly and do not overheat excessively
- If overheating cannot be eliminated, contact the manufacturer or install an oil cooler

HYDRAULIC OIL SPECIFICATIONS

The hydraulic circuit of the machine is filled with oil at the factory:

Performance level:: API GL 5; SAE 10W-30; SAE 80

Manufacturer's specification: ALLISON C4; CATERPILLAR TO-4; VOLVO VCE WB 101; 97303 JONH DEERE 20C/20D ZF TE-ML 03E/05F/06E/06F/06K/17E/21F; PARKER

DENISON HF-0/HF-1/HF-2 New HOLLAND NH 420A/410B MASSEY FERGUSON M1135/M1141/M1143/ M1145 KUBOTA UDT Fluid CASE IH MS-1204/MS-

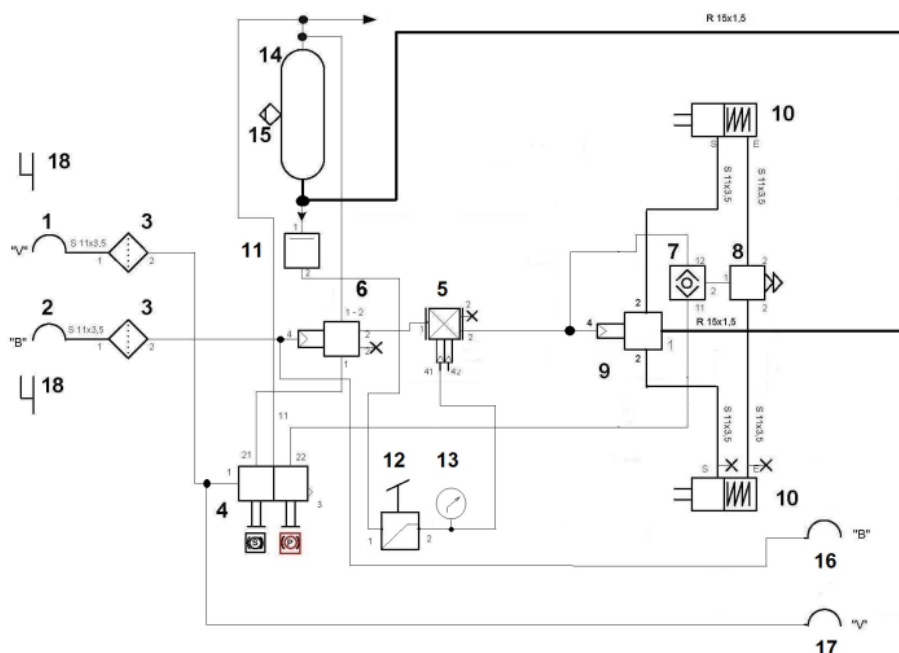
1206/ MS-1207/MS-1209 FORD M2C134D M2C86B/C CNH MAT 3525/ MAT3526 SPERRY VICKERS/EATON M2950S, I-280-S SAUER

SUNDSTRAND(DANFOSS) Hydro Static Trans fluid; CASE CNH MAT 3540(CVT), Claas(CVT), AGCO CVT; ML200, Valtra G2-10(XT-60+)

4.6 Machine brake system

- The machine may be equipped with a single-circuit, dual-hose brake system from KNORR BREMSE
- Braking is performed by spring brake cylinders – the parking brake is built-in and automatic (controlled by a button, see below).
- To release the parking brake, sufficient air pressure in the system is required. Always check before driving that the parking brake is released.
- The load valve setting must be adjusted according to the current weight of the machine.
- **WARNING!!** If air leaks from the system, the parking brake activates automatically and can only be physically released mechanically (see below).
- Brake adjustment instructions are provided in chapter 11.4
- At the rear hitch, there are air quick couplings for the attached implement. If equipped with brakes, these must be connected.

4.6.1 Brake wiring diagram



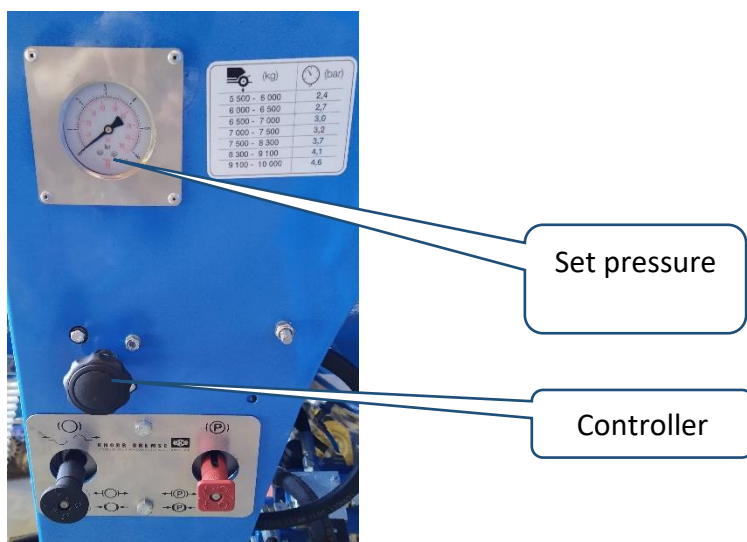
1	Quick-coupler – red line
2	Quick-coupler – yellow line
3	Air filter
4	Control valve of the manual brake
5	Load regulator
6	Brake valve
7	Two-way valve
8	Jettisoning valve
9	Relay valve
10	Combined membrane brake cylinder Type 24/30
11	Bypass valve
12	Pressure relief valve
13	Pressure gauge
14	Air tank 60 l
15	Drain valve
16	Quick coupling for the attached machine – red hose
17	Quick coupling for the attached machine – yellow hose
18	Quick-coupler holder

4.6.2 Brake system adjustment according to load

- Brake settings must be adjusted according to the current axle load
- The axle load changes with the attached machine and the amount of fertilizer in the hopper
- The axle and drawbar loads must not exceed legal limits during road transport

Brake pressure adjustment

- To check the set pressure, the system must be pressurized
- Turn the controller to set the required pressure according to the table
- The table also shows the pressure acting on the brake cylinders. This pressure is the maximum braking pressure and is provided for information only (measured directly at the brake cylinder)
- Axle load:
 - Without attached machine: 3 000 kg
 - Empty hopper, Digger 3 N: 6 500 kg



Axle load (kg)	Set pressure (bar)	Pressure in brake cylinders (bar)
3 000 – 3 500	1,2	3
5 500 – 6 000	2,4	4,4
6 000 – 6 500	2,7	4,7
6 500 – 7 000	3,0	5
7 000 – 7 500	3,2	5,4
7 500 – 8 300	3,7	5,9
8 300 – 9 100	4,1	6,4
9 100 – 10 000	4,6	7

4.6.3 Connection and disconnection to the tractor

CONNECTION

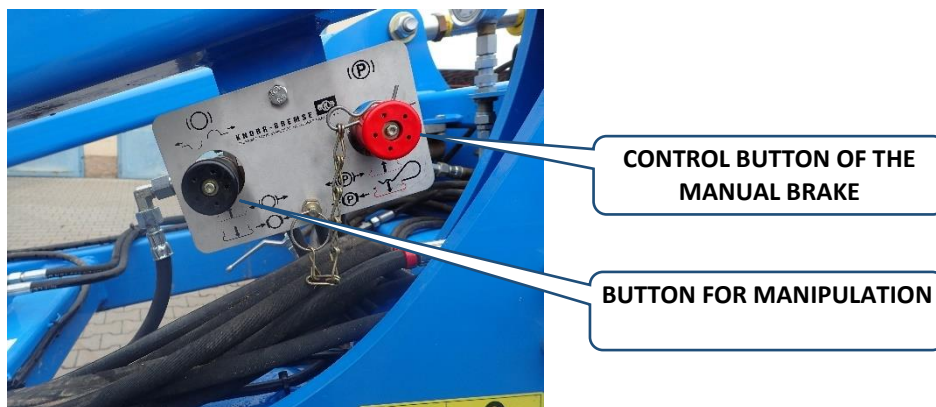
- 1) Connect the yellow quick coupling
- 2) Connect the red quick coupling

DISCONNECTION

- 1) Disconnect the red quick coupling
- 2) Disconnect the yellow quick coupling

4.6.4 Hand brake control valve

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



Description of hand brake operation with disconnected air line

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

Black button extracted

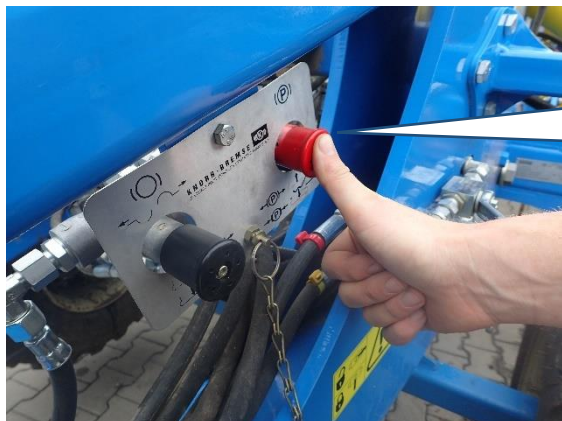
- The parking brake is locked

Black button is pressed

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

Description of hand brake operation with connected air line

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



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

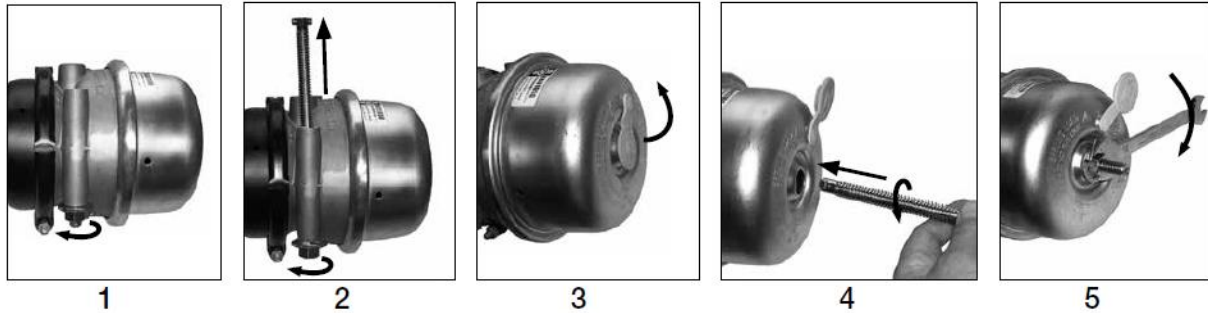


RED BUTTON EXTRACTED
= **MANUAL BRAKE IS ACTIVE (THE**
MACHINE IS BRAKED)

4.6.5 Emergency brake release in case of air leak

- It is possible to release the brakes of the machine using special brake release bolts in case of a leak of air from the brake system.
- The bolts are included in the installation unit of the brake cylinder.

Emergency brake release procedure in case of air leak



- Remove the bolts from the holders of the brake cylinder (Figure 1 and 2)
- Release the cap on the back side of the brake cylinder (Figure 3)
- Insert the bolt by its flat end (T-shape) into the opening in the cylinder and turn the bolt by 90° at the end of the opening so that the screw is arrested and cannot be pulled out (Figure 4)
- Turn the nut (19 mm spanner) clockwise (Figure 5). ATTENTION: Maximum torque is limited to 68 Nm

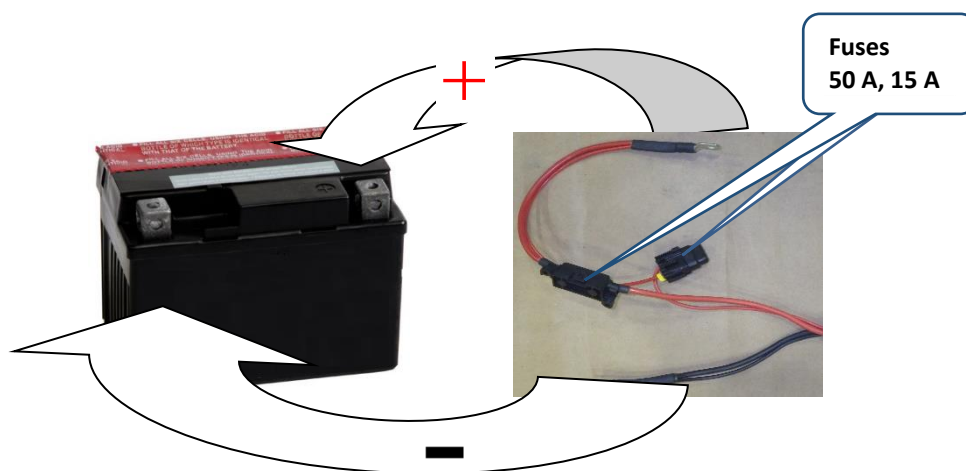


For service installation of bolts, the brake system can be pressurized via the red quick coupling. This reduces physical effort, as spring compression is assisted by air pressure.

4.7 Connecting the electronic control unit

- Connect the machine's electronic control unit only when the tractor is stationary, secured against movement, and protected from unauthorized access.
- Place the display unit in the tractor where it does not obstruct the driver's view and remains within the operator's field of vision.
- Use the power cable supplied with the machine to connect the electronic unit
- The connection cable must be connected directly to the tractor's battery!
- The connection cable includes the required sockets for connecting the electronic control unit
- Do not connect the cable or unit to other connectors in the tractor.
- An ISOBUS-compatible tractor monitor may also be used for operation.

Figure 8



CAUTION: Ensure correct cable polarity when connecting!

Figure 9 - Connection socket on the tractor



4.8 Connection of the fan hydraulic drive

4.8.1 Function description

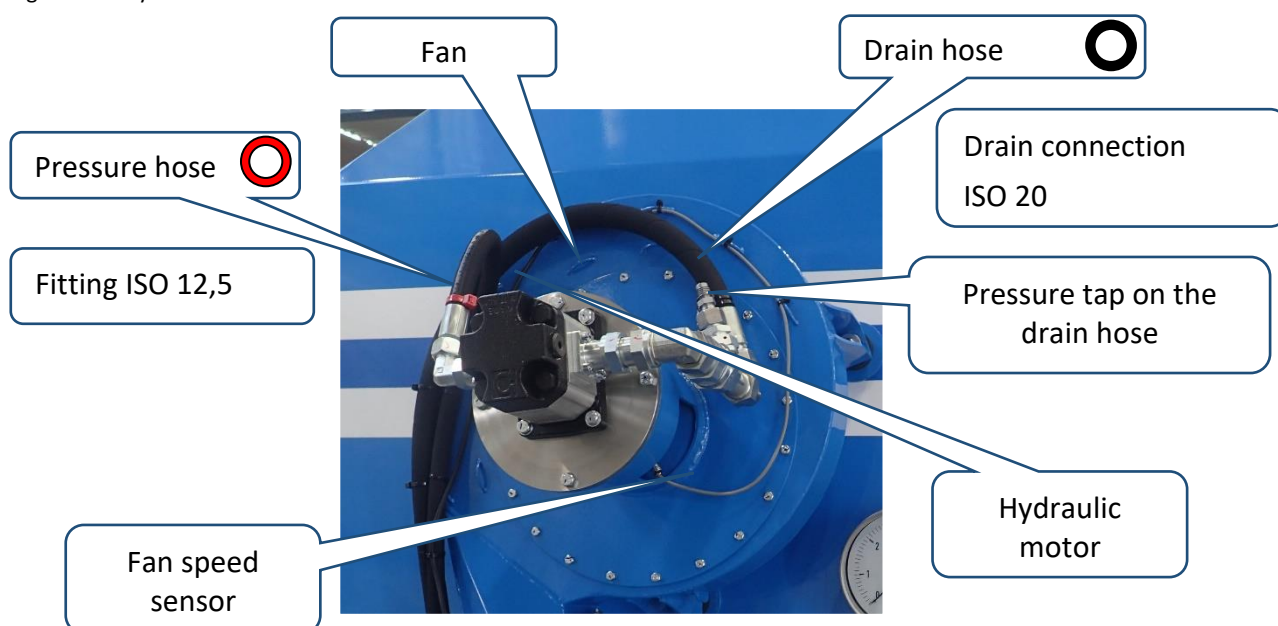
The hydraulic fan is driven directly by the tractor's hydraulic system.

The tractor's hydraulic pump must supply a sufficient oil flow to ensure proper operation, so that the fan speed is not affected by engine speed fluctuations or the activation of other hydraulic circuits.

The fan speed is adjusted by controlling the oil flow rate. To enable fan speed adjustment, the tractor must be equipped with an oil flow control system.

Check the fan suction grille daily for contamination.

Figure 10 – Hydraulic fan drive



Tab. 8

Rotary hydraulic motor	Volume (cm ³ /ot.)	8,5
	Maximum fan speed (ot/min)	5 000
Pressure oil	Maximum flow rate in the pressure hose (l/min.)	45
Drain	Maximum pressure in the drain hose (bar)	5



4.8.2 Correct Connection to the Tractor

When connecting, observe the following points:

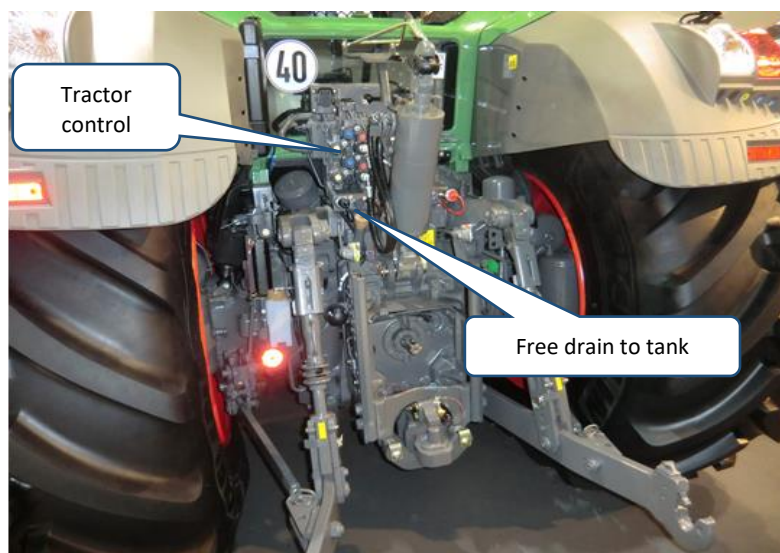
Drain hose

- The drain hose must not be connected to the tractor's control valve! (this will increase pressure in the return line)
- The large quick coupling on the drain hose must not be replaced with a small quick coupling
- The returning oil through the drain hose must not be restricted anywhere
- **The maximum allowed pressure in the drain hose is 5 bar**; higher pressure can cause shaft seal extrusion, leading to damage of the hydraulic motor fan

Pressure hose

- Connect the pressure hose to a dedicated circuit with priority oil supply
- The oil flow must not decrease when other tractor circuits are in use

Fig. 11 – Location of quick couplings on the tractor



Drain hose connection

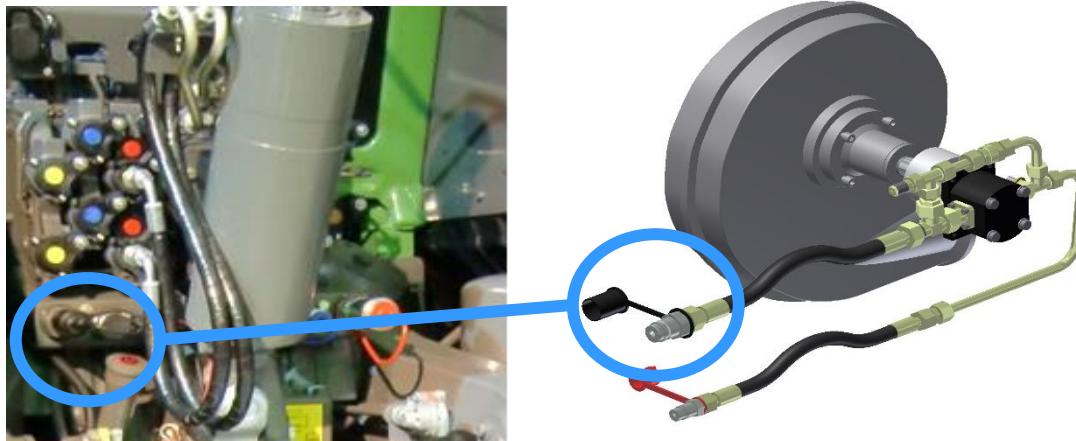
Connect the drain hose (outer diameter 27 mm) with the large quick coupling to the tractor's free drain to tank.

The illustration of the drain hose is for reference only; the drain hose is shared between the fan and the distributors.



If the tractor is not equipped with a standard free drain to tank, please contact the tractor manufacturer (dealer) for information about available free drain fittings.

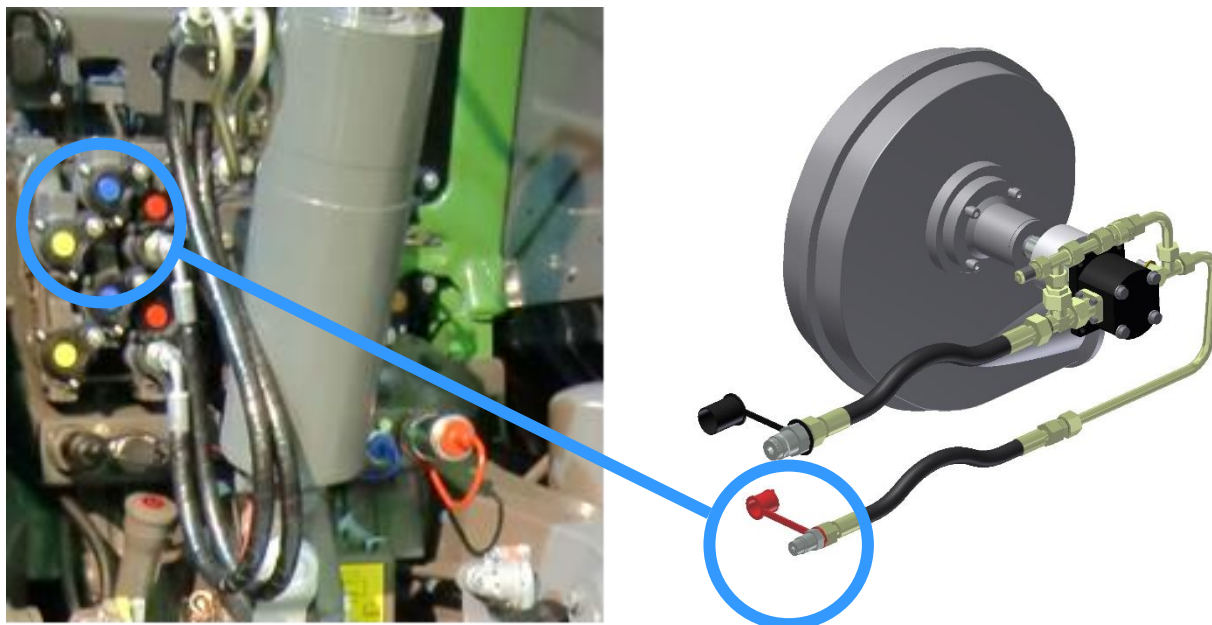
Fig. 12 – Drain hose connection



Pressure hose connection

Connect the pressure hose (outer diameter 22 mm) with the small quick coupling to the tractor's control valve.
This hose must be connected to a circuit with priority oil supply.

Fig. 13 – Pressure hose connection



4.8.3 Initial Start-up

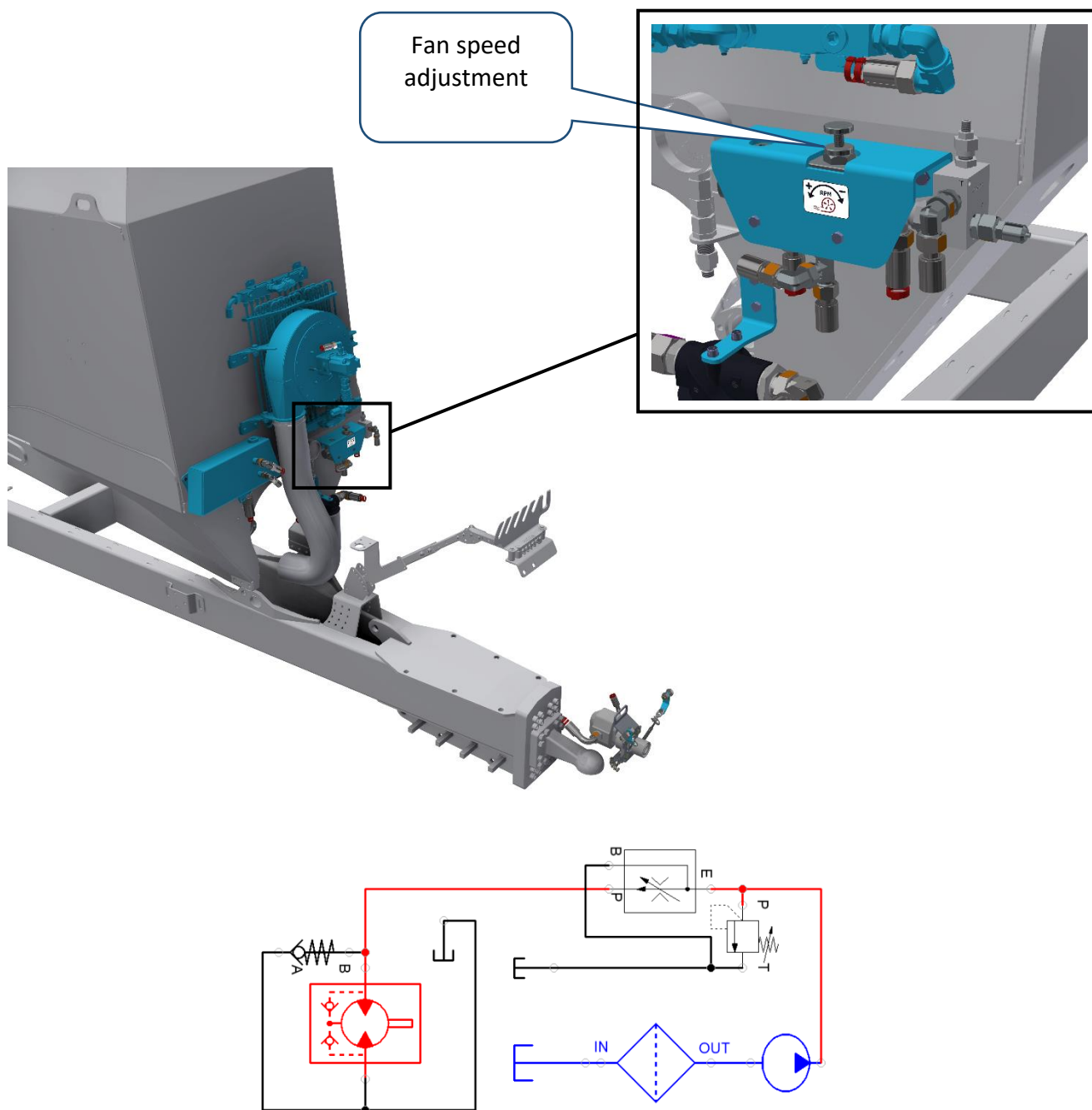
- Adjust the desired fan speed only when the hydraulic oil is warmed up.
- During the initial start-up of the hydraulic drive, gradually adjust the fan speed (working air pressure on the hopper pressure gauge).
- Fan speed (pressure on the gauge) is set by regulating the oil flow in the tractor.
- When starting the hydraulic drive with cold oil, gradually increase the engine speed until the oil warms up.
- Při prvním předání a uvedení do provozu je povinen předávající technik celé propojení hydraulického pohonu prověřit a provést změření tlaku v odpadní hadici. Zjištěné výsledky poté zapíše do předávacího At the first handover and commissioning, the technician handing over the machine is required to inspect the entire hydraulic drive connection and measure the pressure in the drain hose. The recorded results must be entered into the handover protocol.



Warning !

Farmet a.s. is not responsible for damage to the hydraulic drive or tractor caused by incorrect hydraulic drive connection.

4.9 Connection of the hydraulic fan drive with separate PTO drive



Warning!

- Securing the hydraulic generator against rotation with chains.
- Always use the PTO fan set to **540 rpm**.

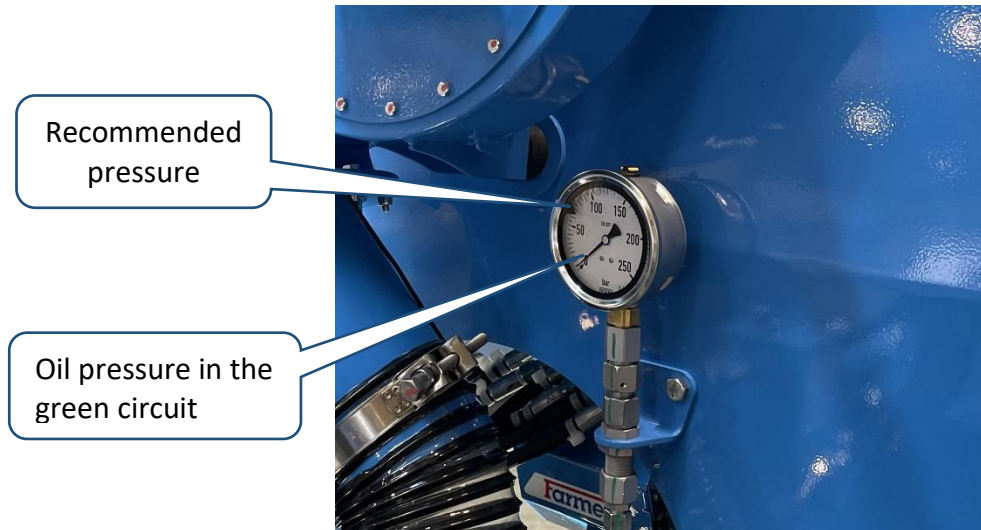
Methods to set the fan speed:

- Connect the hydraulic generator to the tractor PTO.
- Set the working speed on the tractor (540 rpm).
- Use the reducing valve to set the required fan speed.
- Check the speed on the machine monitor.

4.10 Flow adjustment in the distributors circuit (green circuit)

- The circuit is equipped with a pressure gauge for flow monitoring (Fig.4)
- Pressure increases with increasing flow rate
- The recommended pressure range under normal conditions is 60 - 70 bar
- The recommended pressure is marked on the gauge with a sticker
- Never set the pressure below 40 bar or above 100 bar

Fig. 14 – Pressure gauge of the distributors circuit



- The set flow rate in the circuit must always be higher than the flow corresponding to the current rotational speed of the distributor hydraulic motors
- The circuit is equipped with electronic valves that divert excess oil flow back to the tractor
- Based on experience, adjust the tractor's flow rate according to the current conditions
- If the flow rate is too low, the monitor will display the error: "Distributor drive cannot maintain the required value"
- If the flow rate is too high, oil heating and fuel consumption increase

The flow rate must be increased:

- At higher working speeds
- At higher fertilizer application rates per hectare
- With a wider working width of the attached implement
- At a lower fertilizer calibration factor (grams per revolution)

4.11 Permissible loads

- The drawbar load must not exceed the values specified by the tractor manufacturer
- Check the axle and tire loads of the tractor according to the tractor manufacturer's recommendations
- Verify the values by weighing individual axles of the tractor and the implement
- The table of maximum weights for towed implements is provided in Chapter 12.1

Load on public roads

- The drawbar load during road transport must not exceed 3,000 kg for C50, C70 eyes and 4,000 kg for K80 balls
- The axle load during road transport must not exceed 10 000 kg
- Zatížení oje nesmí být menší než 250 kg (2 450 N), hrozí neklidná jízda a poškození zajišťovací západky koule The drawbar load must not be less than 250 kg (2,450 N) to avoid unstable driving and damage to the locking latch of the K80 ball

4.11.1 Recommended drawbar ballast for the implement

- The front of the silage wagon must be ballasted according to the attached implement at the rear.
- Ballasting may also improve the tractor's traction performance.
- For recommendations, contact your dealer.

Ballast options (recommendations may vary depending on the attached implement equipment)

- **900 kg** suitable for Strip-Till 6, Digger 4 N
- **350 kg** suitable for Strip-Till 3 a 4,5, Digger 3 N
- **0 kg** suitable for semi-mounted implements

5. MACHINE ELECTRONIC SYSTEM

Falcon HW silage wagons are equipped with the Müller electronic system. The following chapters briefly and clearly describe the basic operation and overview of this electronics.

General usage instructions:



- Before connecting the system, it is necessary to install the power cable into the tractor (included in the delivery)
- This cable must be connected directly to the tractor's battery
- An ISOBUS-compatible tractor monitor can also be used for control
- The battery connection must be secure and have good contact — otherwise, system failures and malfunctions may occur.
- The cable must not be connected to other tractor connectors!
- Observe correct polarity (**black -**, **red +**)
- The cable is equipped with two fuses: 50 A and 15 A
- Connect the electronic system only using the supplied cable
- For proper system operation, the battery voltage must be within the range of **12 V – 14,4 V**
- Secure all connecting cables between the machine and tractor against mechanical damage and thermal stress from hot tractor parts and hydraulic lines
- Turn on the display unit only after connecting it to the power source
- In case of an abnormal situation during operation, disconnect the entire system from the power source for a short time
- Disconnect and connect all control system modules only after disconnecting the power supply
- Turn on the system only after starting the tractor engine (do not start the engine with the system switched on)
- If a fuse blows, first try to identify the cause of the fault or seek professional service
- Never replace a fuse with any object other than a proper fuse
- Some parts of the system may heat up to approximately 50°C during operation; if noticeably higher temperatures occur, find the cause or seek professional service
- Protect the display unit from splashing water and temperatures below -20°C and above +60°C
- If welding is necessary on the machine or tractor, disconnect the unit from the power source and disconnect the connecting cables

5.1 Switching on and off the distributors

- The switching settings of the distributors can be changed in the electronic system
- In case of any doubts, contact your dealer

5.1.1 Carried machines


Switching the distributors on and off is controlled by two sensors. The system is designed so that switching on occurs already at the beginning of the deepening process. Before the fertilizer/seeds pass through the entire pneumatic distribution system, the implement is deepened, minimizing the delay in starting application at the beginning of the plot. Conversely, switching off the distributors happens right at the start of lifting.

DISTRIBUTORS SWITCHING ON

Switching on is ensured by an antenna sensor. The antenna sensor is set to activate immediately at the start of deepening. The switching sensitivity depends on the sensor position, which is set between the TBZ frame and the main implement frame. It can be adjusted by loosening screws (see Fig. 15) and changing the sensor's position relative to the holder. This sensor also starts the machine functions check.

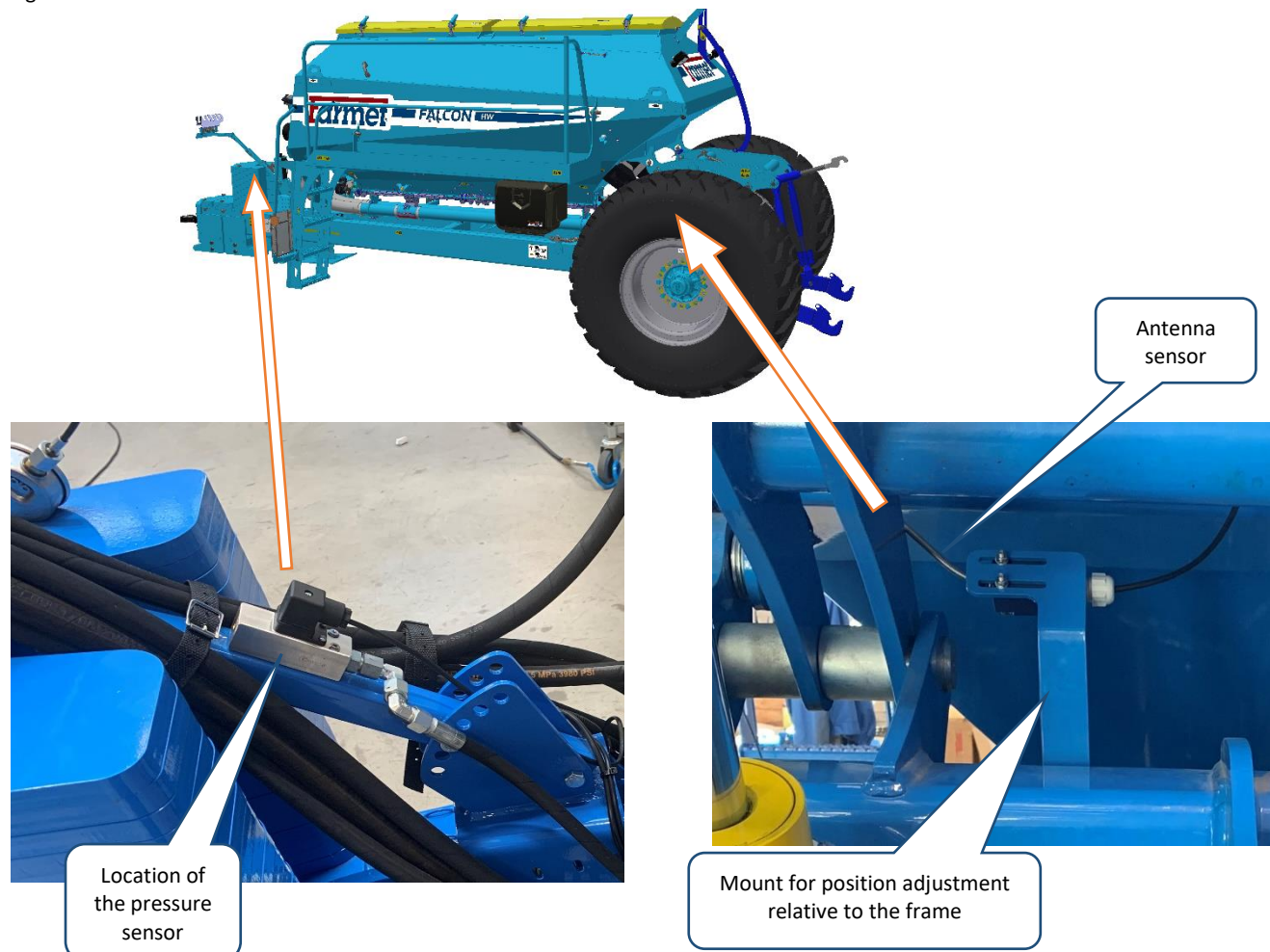
DISTRIBUTORS SWITCHING OFF

Switching off the distributors is ensured by a pressure sensor located in the hydraulic circuit of the rear TBZ lift. The sensor sensitivity is set to a pressure of 10 MPa. During lifting, oil pressure is applied to the hydraulic distributor; when the set value is reached, the switch activates and stops the seed distributor motors.

 For this reason, after deepening the implement to the working position, move the hydraulic control lever to the **FLOATING POSITION!!!**

The sensitivity of both the pressure and antenna sensors is factory-set. Only qualified service personnel are allowed to change these settings.

Fig. 15 - Location of sensors on the machine



5.1.2 Semi-carried Machines

- If the machine is lifted at the headland by both the three-point hitch and hydraulics, the switching settings can be the same as for carried machines
- If the machine is not lifted by the three-point hitch (e.g., connection by K50 eye), the distributor switching settings must be changed
- Settings are made via the terminal
- In case of any uncertainties with the settings, contact your dealer

Options for switching distributors on and off

1) By pressure and antenna sensors

- Same settings as for carried machines
- The machine is lifted at the headland by the three-point hitch and possibly by a hydraulic circuit
- For lower lift height, it is possible to adjust the antenna sensor setting

2) By GPS signal

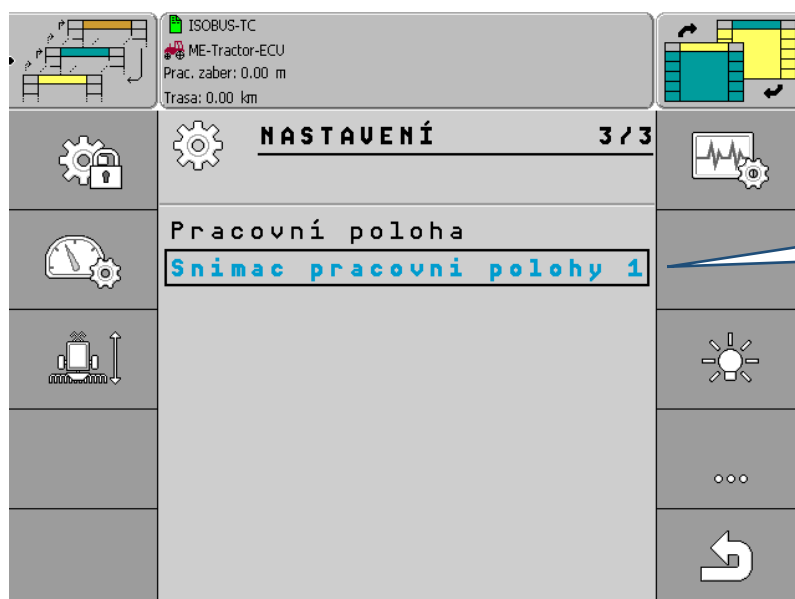
- Using GPS signal with section control functions
- Switching on and off is done with precise anticipation to allow for hose filling; timing can be adjusted
- Switching occurs exactly at the headland boundary or the edge of the already processed area
- This function is available as a trial in the basic equipment; for continued use, only activation of a license is required
- Basic correction GPS signal is sufficient for operation

3) By signal from the tractor

- Signal from the tractor via ISOBUS according to tractor settings
- The signal is sent, for example, upon activation of a hydraulic valve, etc., according to the configuration.

4) By pressure sensor

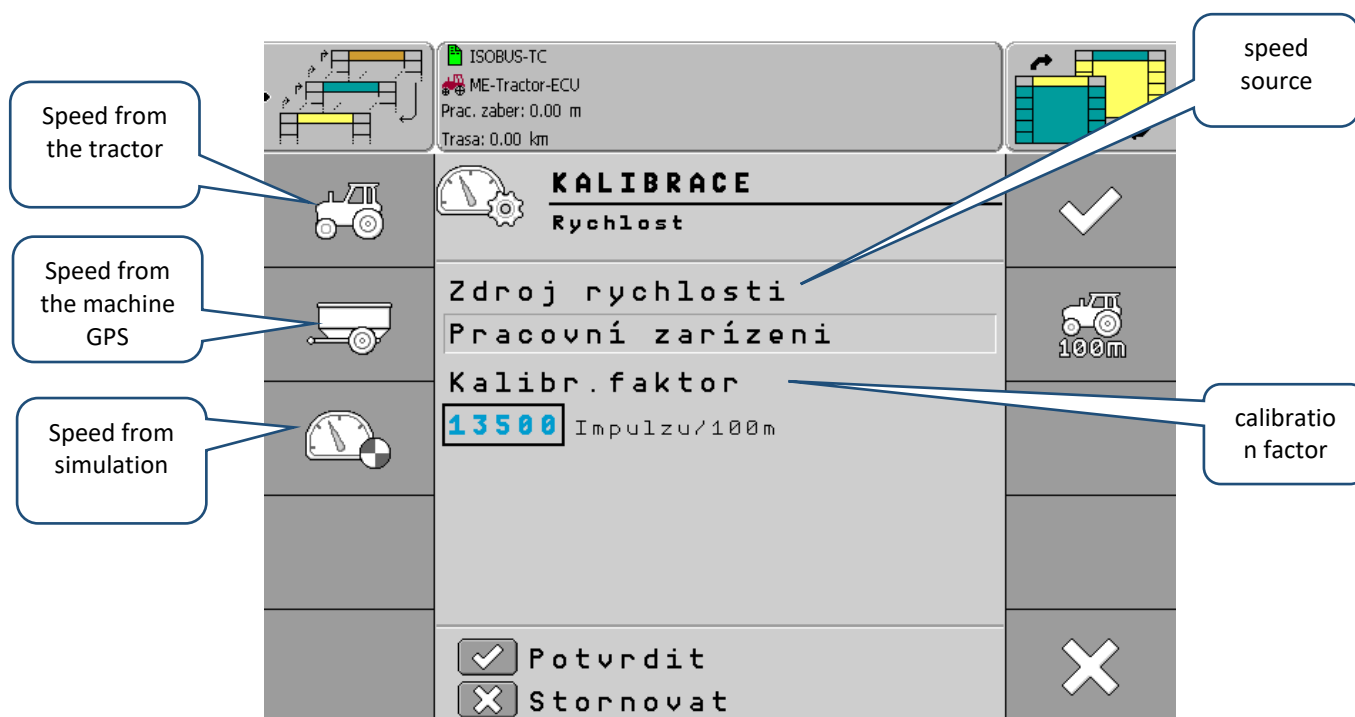
- The pressure sensor must be installed in the hydraulic circuit that lifts the semi-carried machine out of work position
- When the circuit is depressurized, the dosing operation is reactivated



Setting the sensor for
switching distributors
on and off

5.2 Speed measurement

- Accurate travel speed is essential for automatic maintenance of a consistent application rate per hectare
- The distributor's rpm is automatically adjusted according to the current speed
- Options for speed source settings:
 - Working equipment (radar):
 - Mounted on the machine
 - Radar provides very precise measurement of travel speed
 - Calibration factor: value provided by the radar manufacturer
 - Tractor
 - Speed from the tractor via ISOBUS, if supported by the tractor
 - Simulation
 - Setting a fixed working speed



5.2.1 GPS

- The GPS antenna is mounted on top of the machine
- No adjustment is required during operation
- Perform antenna maintenance only when it is powered off
- Use a damp cotton cloth for cleaning



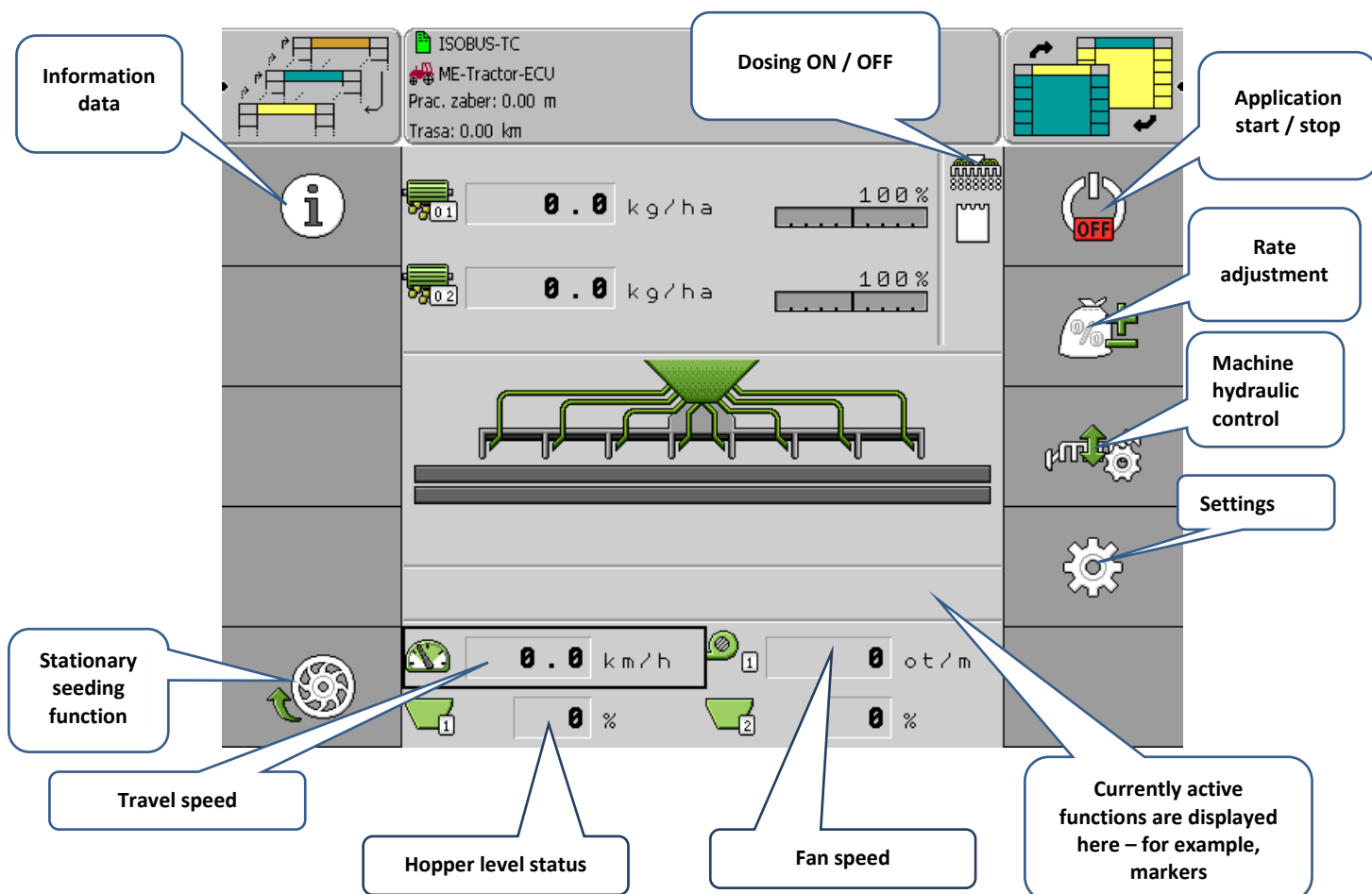
5.3 Description of the main screen

The image below the text shows the main terminal screen. From this screen, the operator has access to all functions necessary for fieldwork. Additionally, this screen displays all important information such as the speed of the machine unit, fan speed, and seeding rate.

Startup screen



Fig. 16 - Description of the main screen



5.5 Configuration of attached machine geometry

- This setting must be specified according to the machine currently attached to the rear three-point hitch
- The working width of the machine is essential for calculating the fertilizer/seeding rate per hectare
- The lead time for switching the applicators on and off is set according to the operating speed
- Settings must always be made separately for each fertilizer/seeding type
- The same settings can also be used by the GPS navigation system for tractor guidance

Fig. 17 Parameters of the bunker wagon

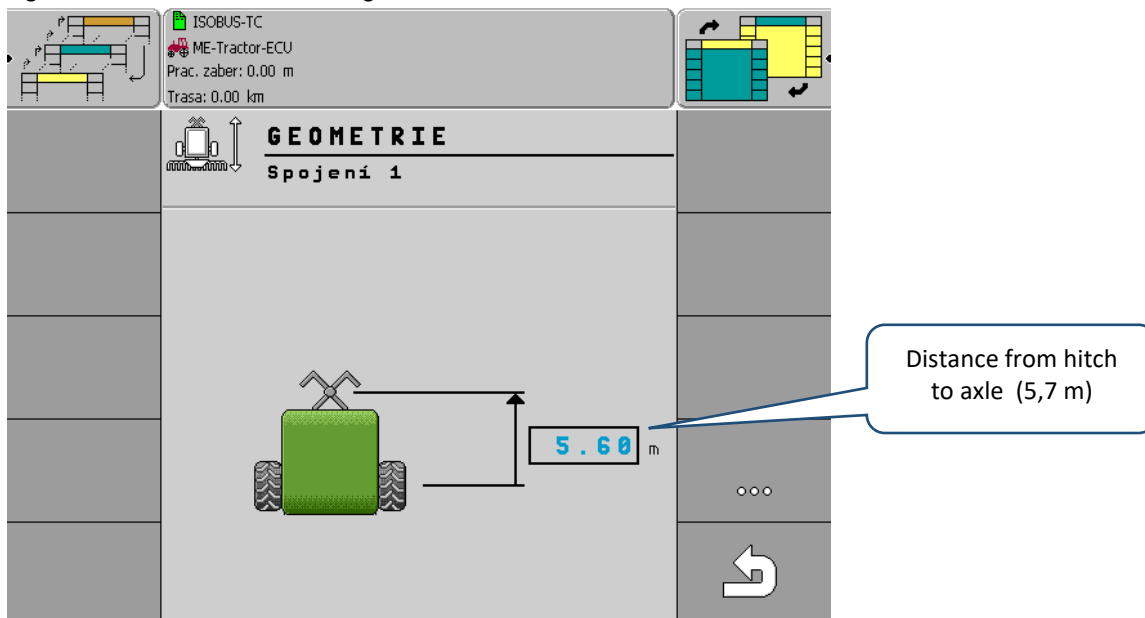
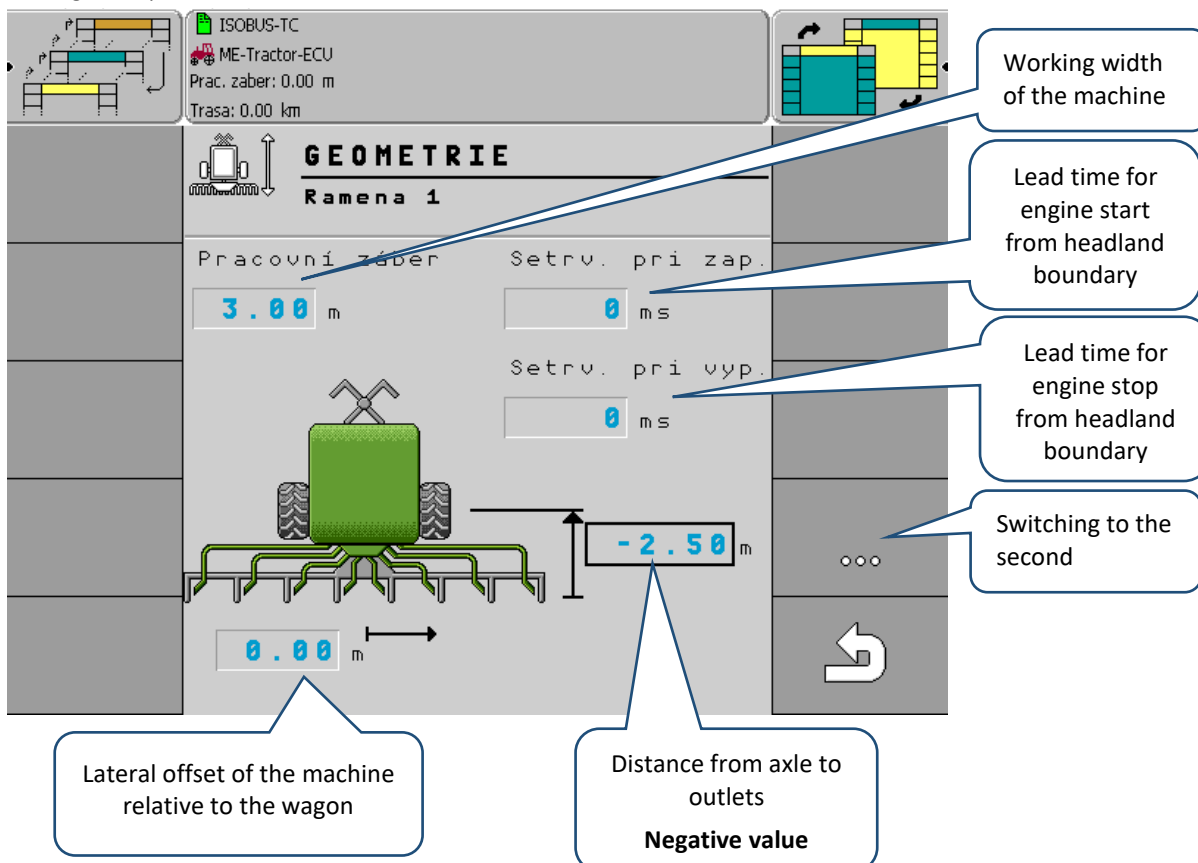
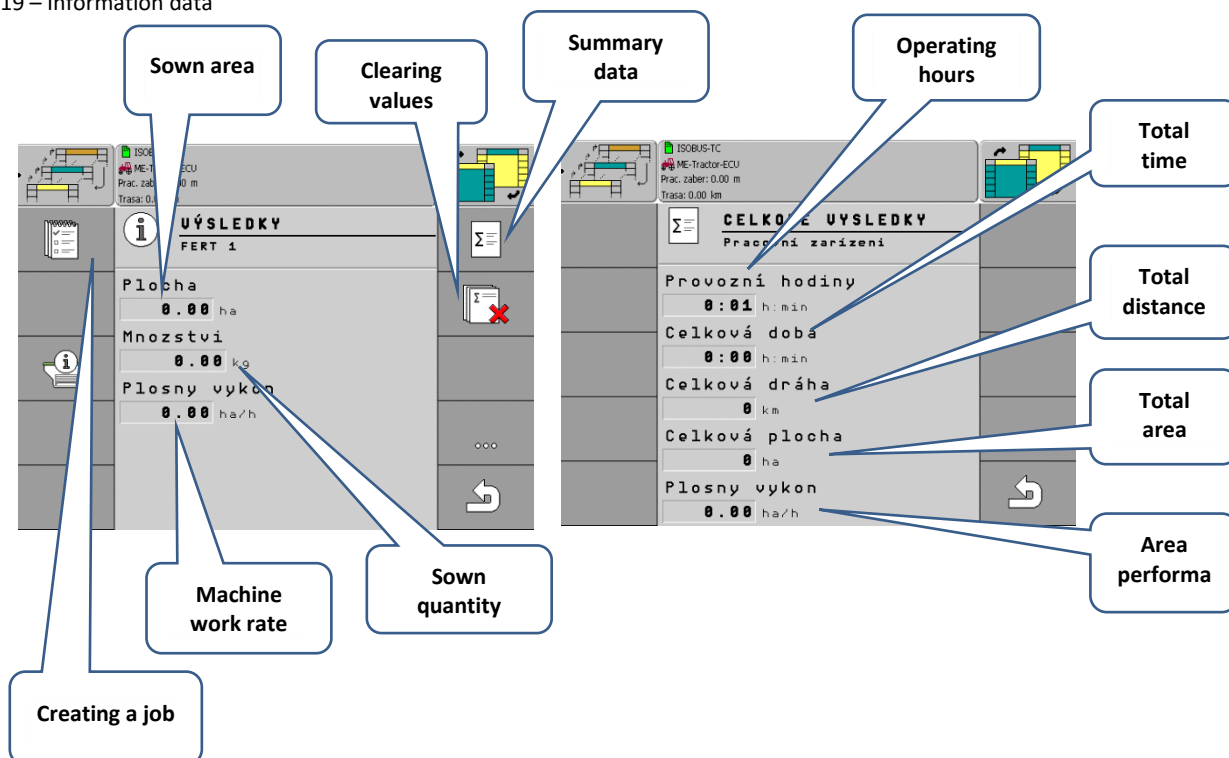


Fig. 18 Implement attached to



5.6 Information data

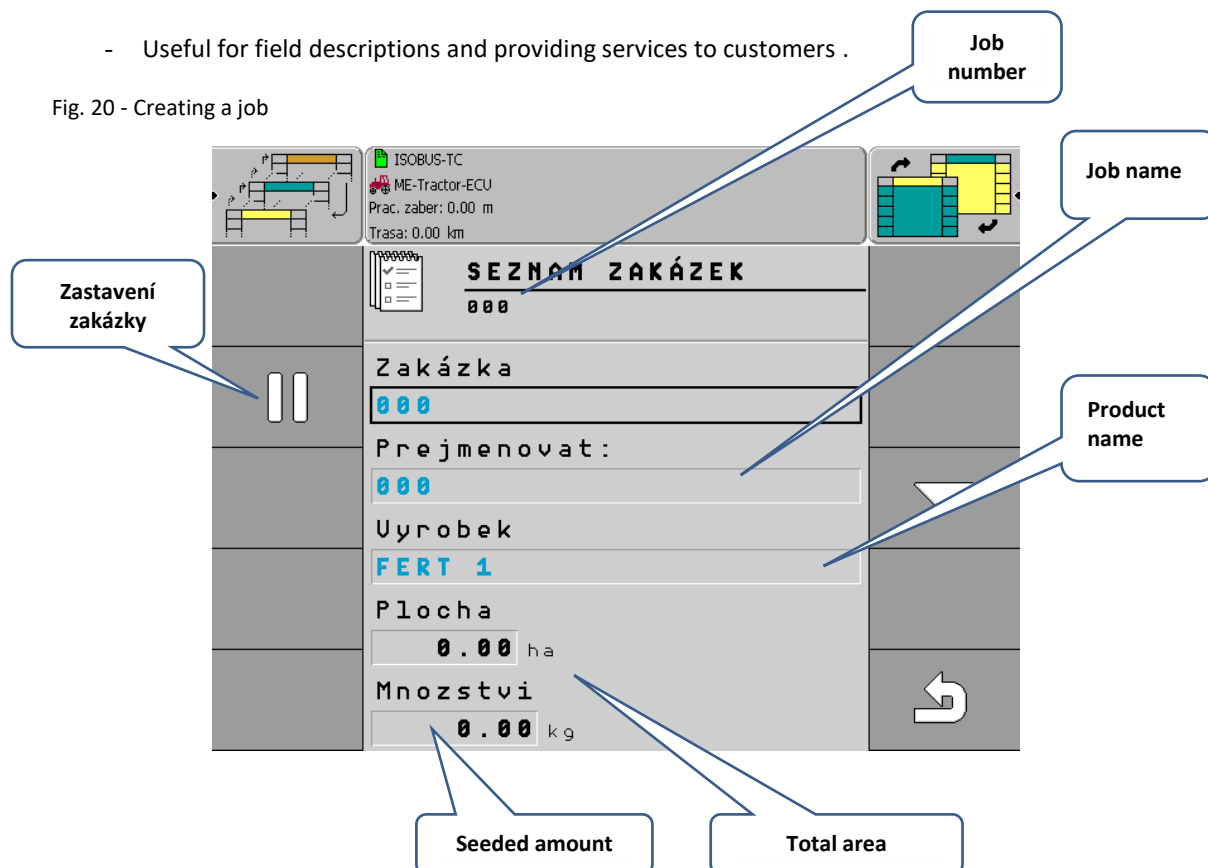
Fig. 19 – Information data



5.7 Creating a job

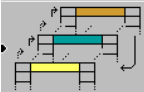
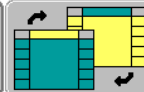



- Useful for field descriptions and providing services to customers .







Fig. 20 - Creating a job



5.8 Product database

- Used for easy switching between frequently used settings for different fertilizers
- No setup is required for use

	ISOBUS-TC ME-Tractor-ECU Prac. zaber: 0.00 m Trasa: 0.00 km	
PRODUKTOVA DATABAZE FERT 1		
Uyrobek		
<input type="text" value="FERT 1"/>		
Prejmenovat:		
<input type="text" value="FERT 1"/>		
Typ vyrobku		
<input type="text" value="Pevné hnojivo"/>		
Poznámka:		
<input type="text"/>		
Prizpusobeni		
<input type="text" value="10"/> %		
		  

	ISOBUS-TC ME-Tractor-ECU Prac. zaber: 0.00 m Trasa: 0.00 km	
PRODUKTOVA DATABAZE FERT 1		
Prevodovy pomer		
<input type="text" value="1"/> / <input type="text" value="1"/>		
Cíl. hod. ot. dmýchadla		
<input type="text" value="0"/> ot/m		
Tolerance ot. dmýchadla		
+ <input type="text" value="0"/> % - <input type="text" value="0"/> %		
Alarm pri stavu hladiny		
<input type="text" value="nizky/prazdna"/>		
Tolerance odchylky		
+ <input type="text" value="15"/> % - <input type="text" value="15"/> %		
		   

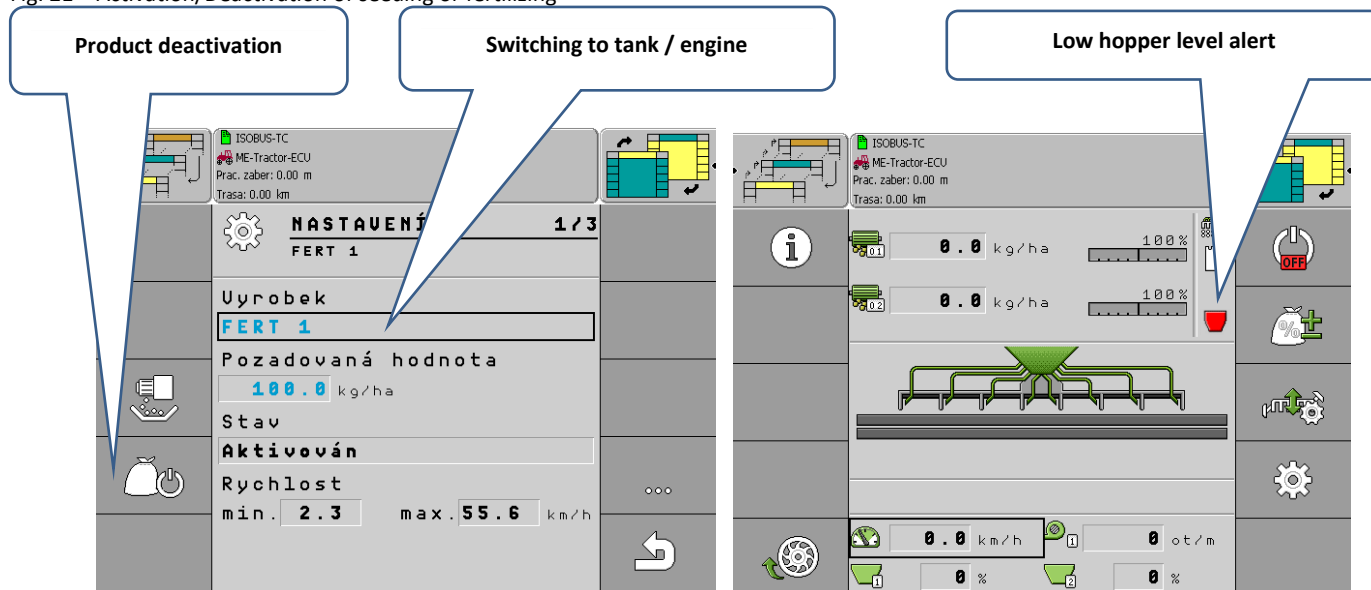
5.9 Fertilizer level in the hopper

Each hopper is equipped with two level sensors to monitor the remaining amount of fertilizer. When the level drops below these sensors, the corresponding symbols light up on the display (in the upper right corner). This indication is accompanied by a warning message.

Activation/Deactivation of seeding or fertilizing

This button allows you to turn off or on the seeding or fertilizing process. In simple terms, pressing this button stops the motor driving the seeding mechanism (the sensors in the respective hopper are also deactivated).

Fig. 21 – Activation/Deactivation of seeding or fertilizing

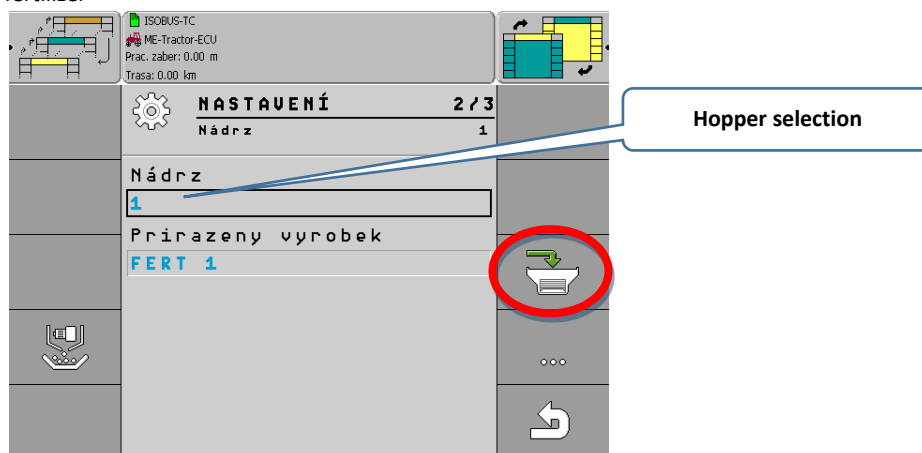


5.10 Fertilizer loading settings

- The setting is done separately for each hopper
- Not required for operation
- Used to calculate the current amount of fertilizer in the hopper

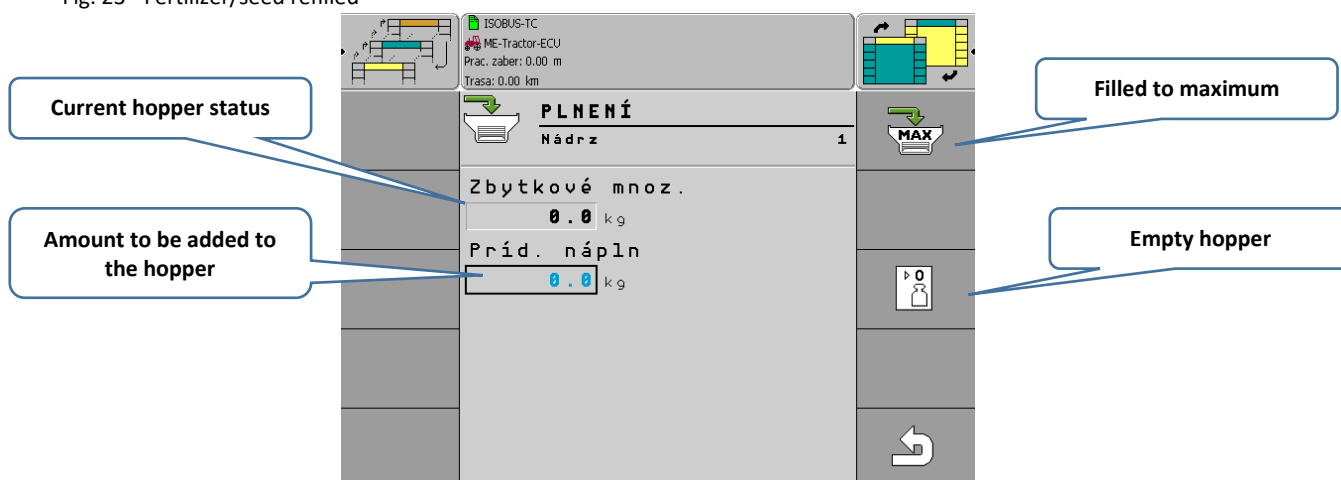
1. In the machine settings on page 2/3, select the hopper filling icon.

Fig. 22 - Loaded fertilizer



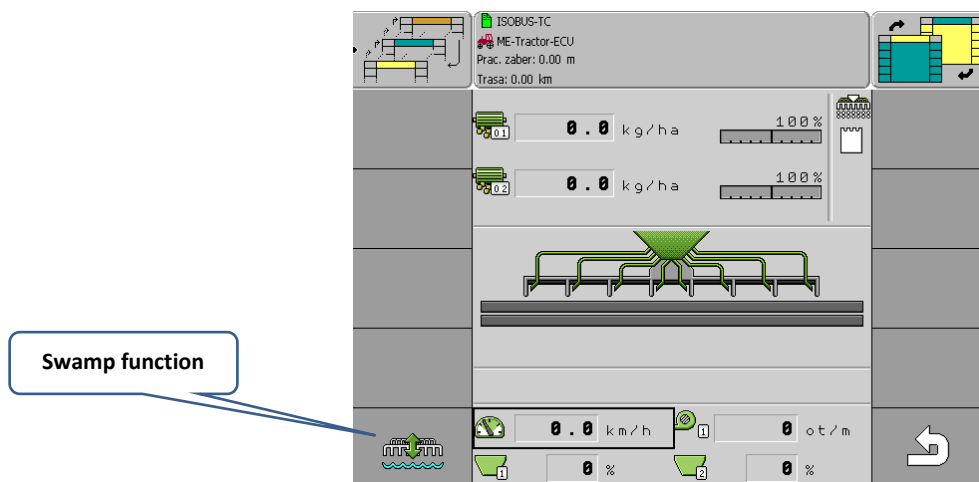
2. Enter the weight you have loaded into the hopper (use the rotary knob on the side of the terminal).

Fig. 23 - Fertilizer/seed refilled



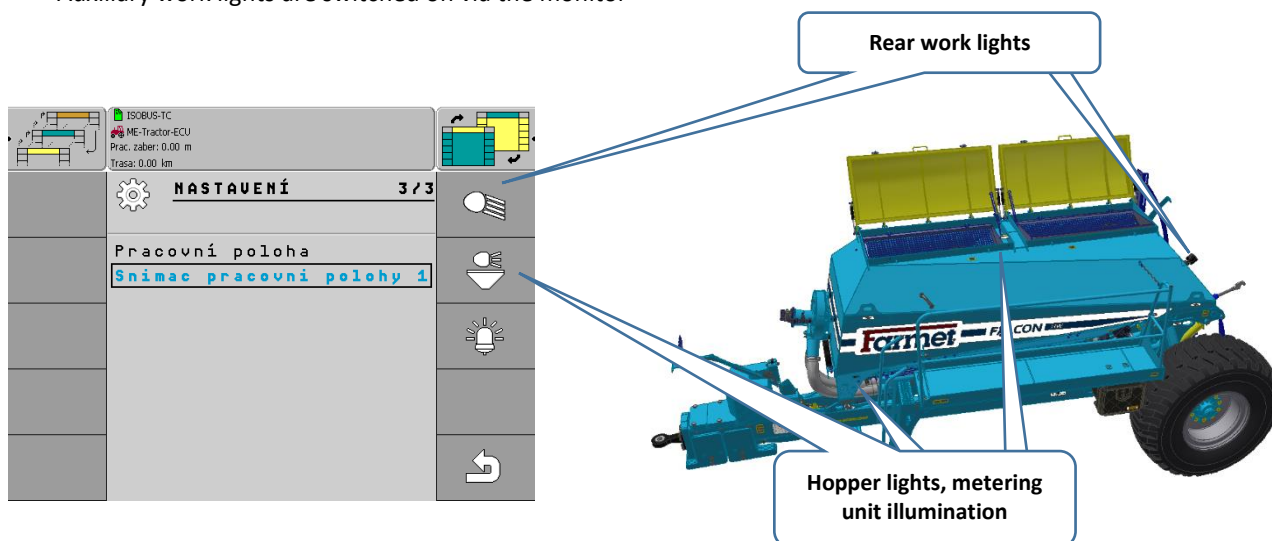
5.11 Fertilization with raised Three-Point Hitch (TBZ)

Swamp Function – In situations where it is necessary to pass through wet areas (swamps) during operation, or if the machine unintentionally enters such terrain, activating this function prevents the metering device from switching off when the three-point hitch (TBZ) is raised. This improves the machine's ability to pass through wet areas by maintaining continuous material flow.



5.12 Work Lights

- Auxiliary work lights are switched on via the monitor



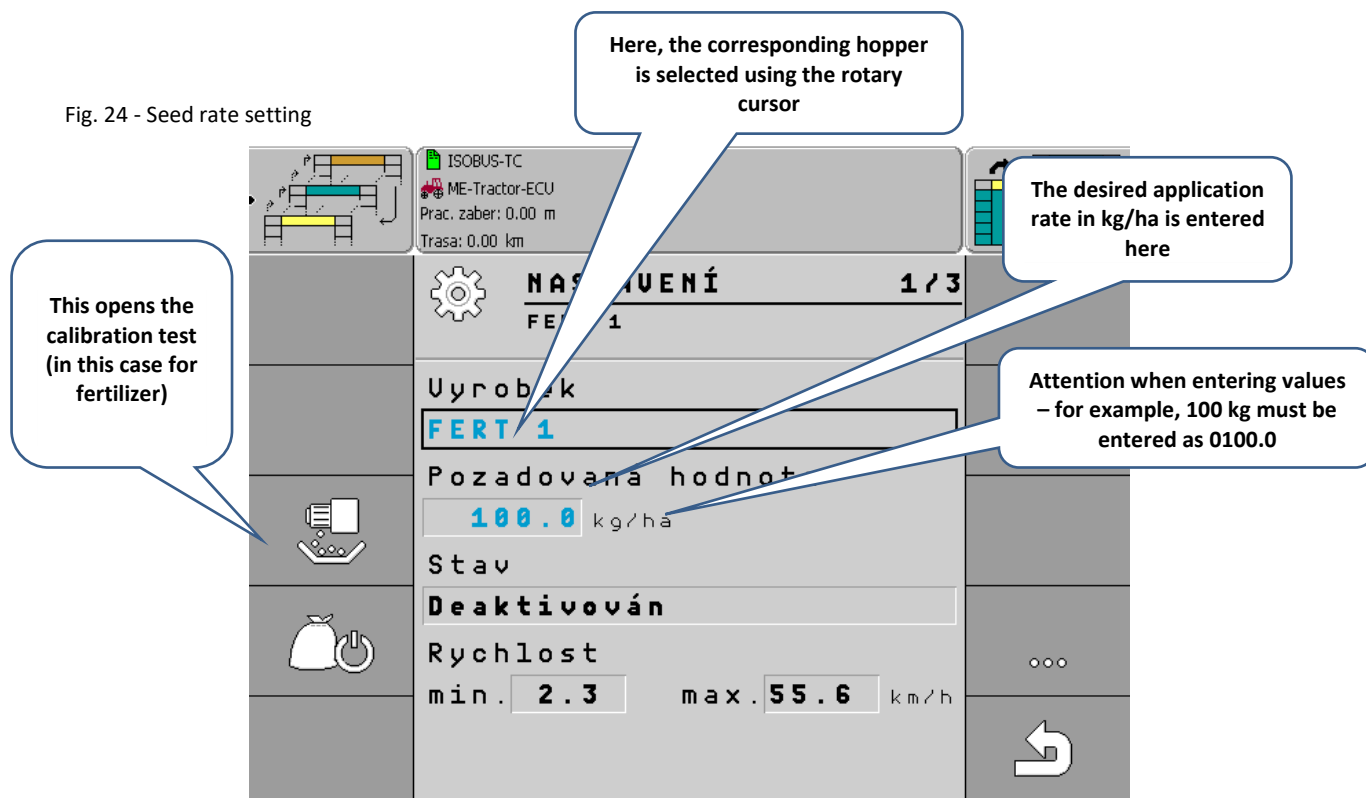
5.13 Hopper cleaning

- If possible, fill the hopper with only as much fertilizer as will be used during operation
- Leaving fertilizer in the hopper may cause it to absorb moisture from the air, leading to hardening.
- As a result, the hopper may no longer be emptyable using the augers, which could lead to damage to the drive system and augers
- Instructions for emptying the hopper are provided in Chapter 9
- Clean the hopper after completing work. If cleaning is not possible, fertilizer may remain in the hopper for a maximum of 48 hours, provided that moisture ingress is effectively prevented.

6. RATE SETTING

- The desired application rate per hectare is entered
- Settings are configured independently for each metering unit
- When applying the same fertilizer with both metering units, the total application rate is the sum of both units' rates
- For this function to work correctly, the working width of the machine must be set properly (see Chapter 5.5)
- All items displayed in blue are selected using the rotary cursor on the side of the terminal

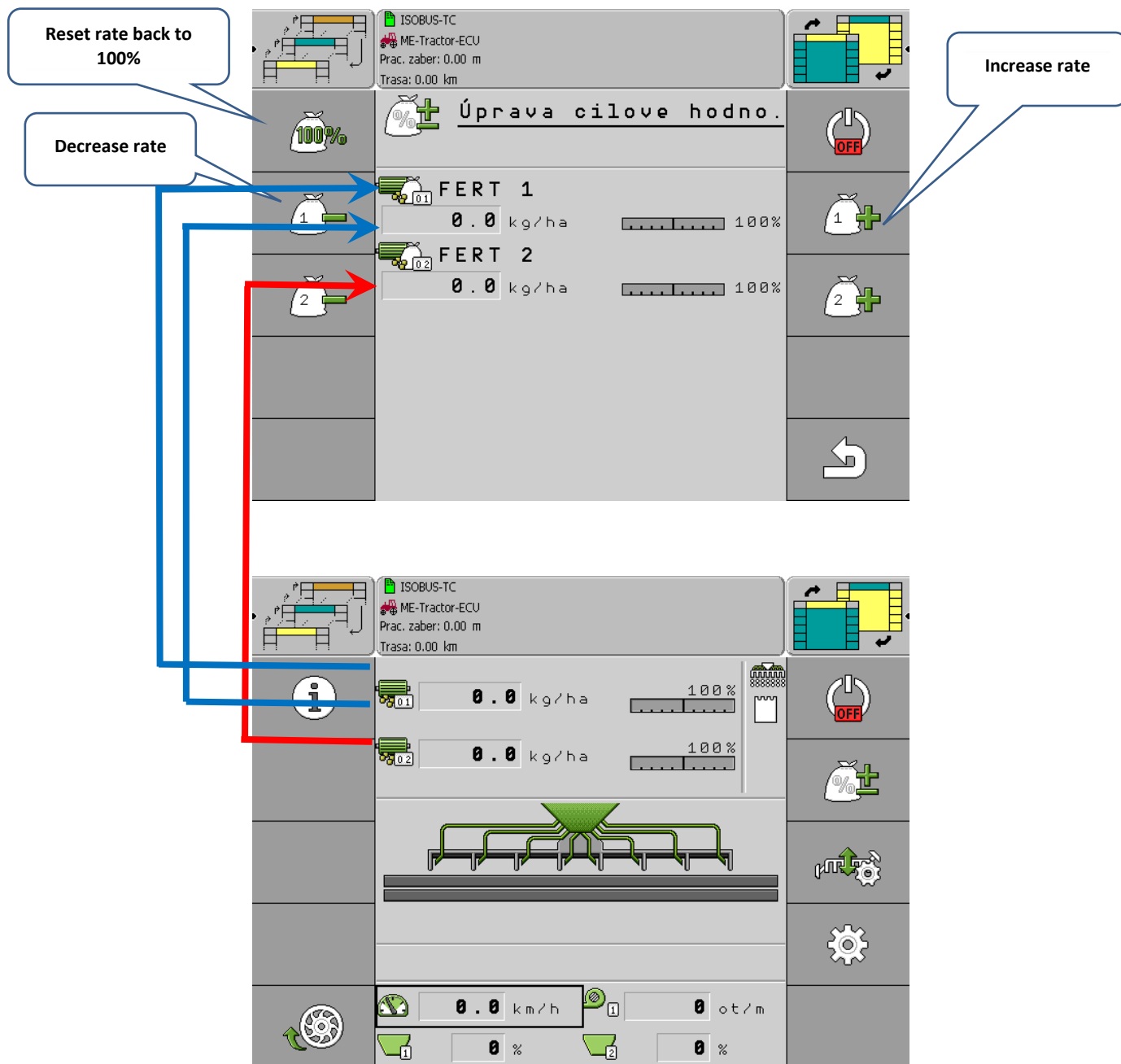
Fig. 24 - Seed rate setting



6.1 Rate adjustment

- During operation, the fertilizer rate can be adjusted as shown in Figure 25. The rate is changed in 10% increments.
- The display unit then automatically adjusts the dosing according to the newly set fertilizer rate

Fig. 25 – Rate adjustment



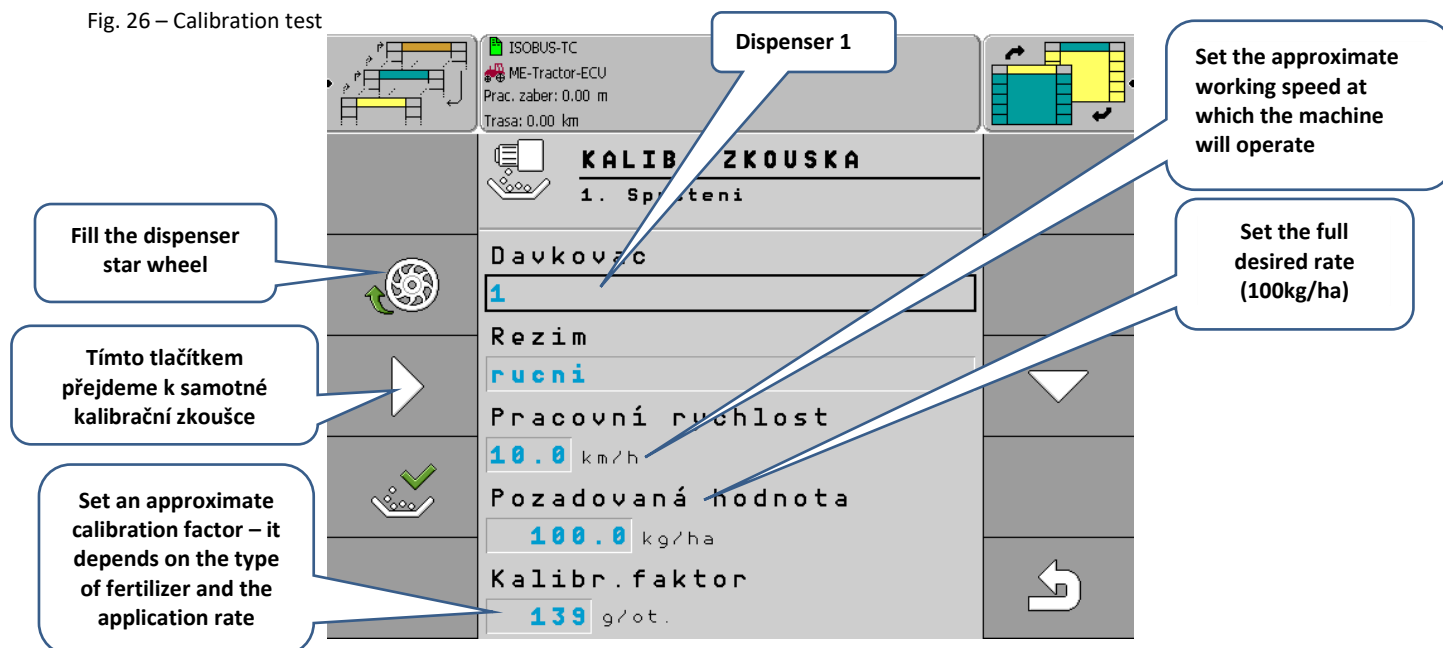
6.2 Calibration test

- The calibration test is used to verify the actual amount of fertilizer or seed being dispensed
- It must be performed at least once daily and always when changing the type of fertilizer or seed
- It is also recommended to perform the test when making significant changes to the application rate or working speed
- The calibration test must be carried out separately for each metering unit

6.2.1 Monitor settings

- Activate the hydraulic circuit for dispenser unit drive
- Perform the required settings on the monitor

Fig. 26 – Calibration test

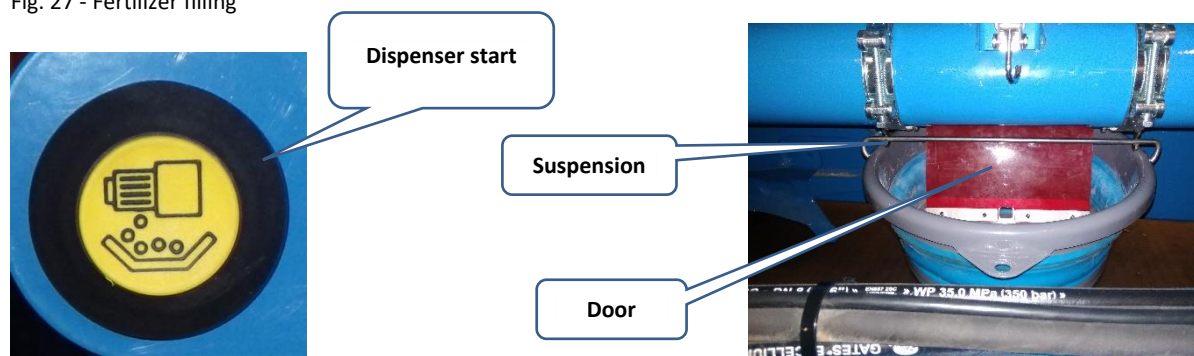


6.2.2 Fertilizer weighing procedure

- 1) Place the scale at the designated hanging point
- 2) Weigh the empty bucket using the hanging scale and tare the weight
- 3) Open the flap below the dispenser
- 4) Hang the bucket on the hooks under the flap
- 5) Press and hold the dispenser start button until a sufficient amount of fertilizer/seed is dispensed into the bucket
- 6) Weigh the net weight of the fertilizer/seed

Calibration factor	
NPK	95 g/ot.
Amofos	75 g/ot.
Urea	60 g/ot.

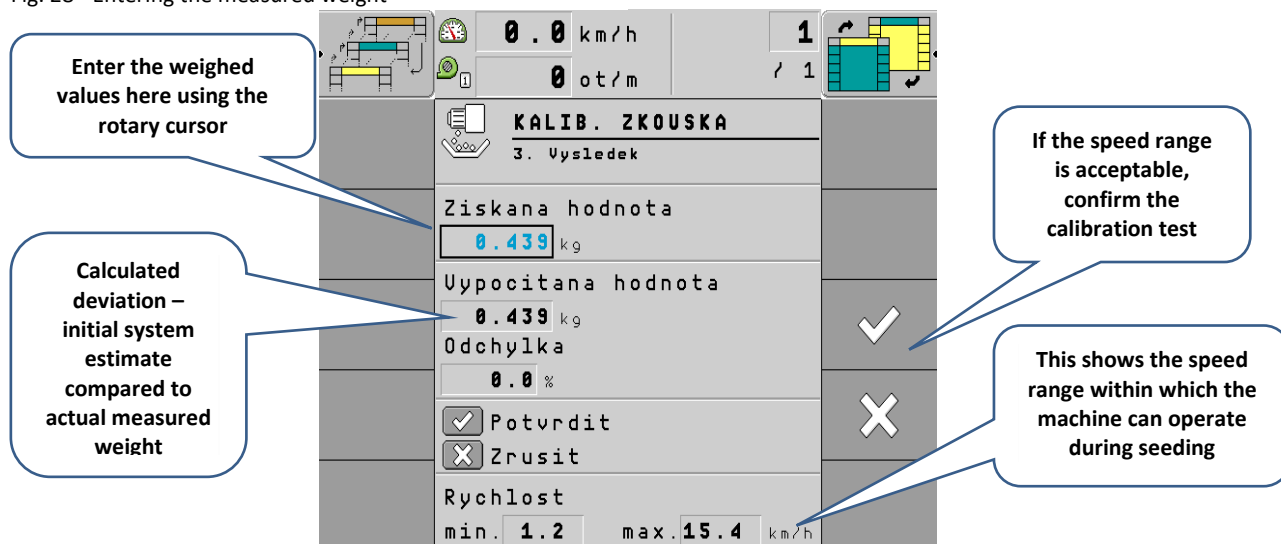
Fig. 27 - Fertilizer filling



6.2.3 Data entry into the monitor

- Enter the weighed net weight of the fertilizer/seed into the terminal
- If the deviation exceeds 5%, repeat the calibration test.

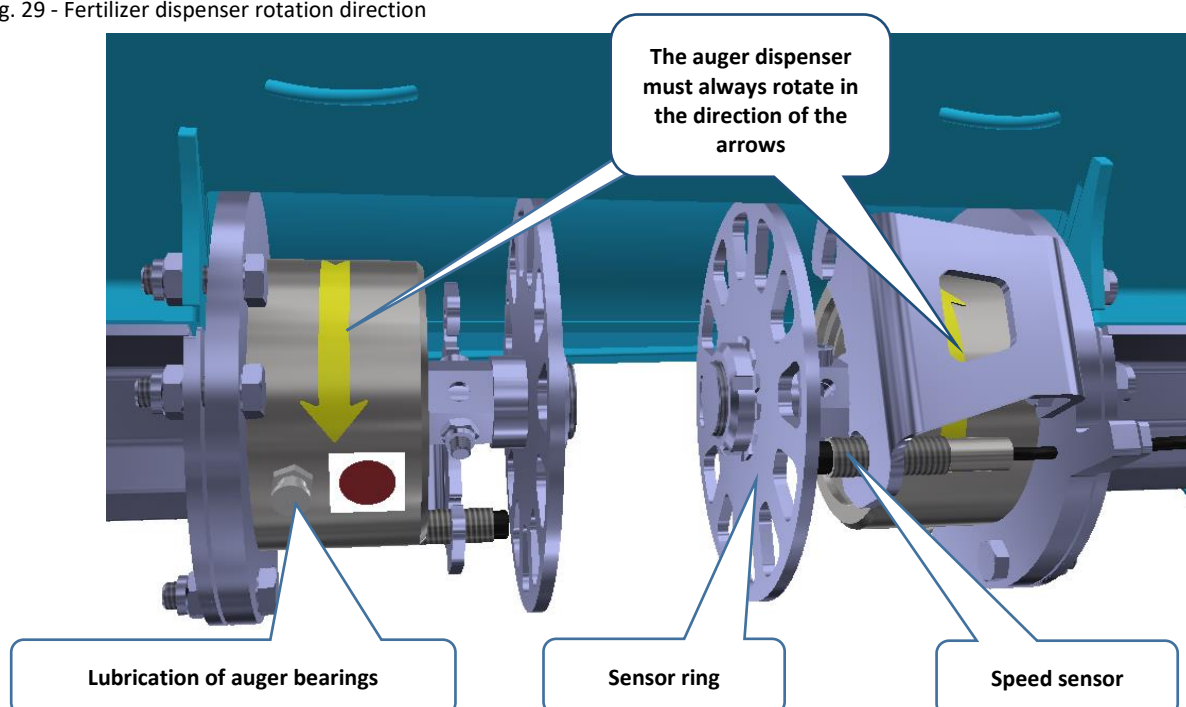
Fig. 28 - Entering the measured weight



6.3 Auger dispenser for fertilizer application

- The machine is equipped with two independent auger dispensers for the split hopper
- The dispensers are driven by two hydraulic motors, using the green hydraulic circuit
- The exhaust is shared with the fan
- The auger dispenser does not have an adjustable star wheel; the application rate is controlled by adjusting the auger speed
- The recommended hydraulic oil flow rate is 10–25 l/min (see Chapter 4.9)
- The hydraulic motor and the dispenser must rotate clockwise
- The distance between the sensor ring and the sensor must be 2–3 mm (see Chapter 11.1)

Fig. 29 - Fertilizer dispenser rotation direction



7. FAN SPEED SETTING ACCORDING TO FERTILIZER TYPE

- Set the desired fan speed only when the hydraulic oil is warm.
- Fan speed is adjusted by regulating oil flow from the tractor.
- Fan speed depends on the type of fertilizer and the application rate.
- Recommended fan speed 3 500 – 4 500 rpm
- Large and heavy fertilizer particles → higher fan speed
- Higher application rate or higher working speed → higher fan speed

Too low fan speed may cause

- Clogging of the air system
- Uneven material transport

Too high fan speed may cause

- Increased fertilizer damage
- Higher fuel consumption and oil heating

Excessive fan speed may lead to fertilizer release at the headland through the auger.

The values provided are approximate and for guidance only.

8. MACHINE ADJUSTMENT

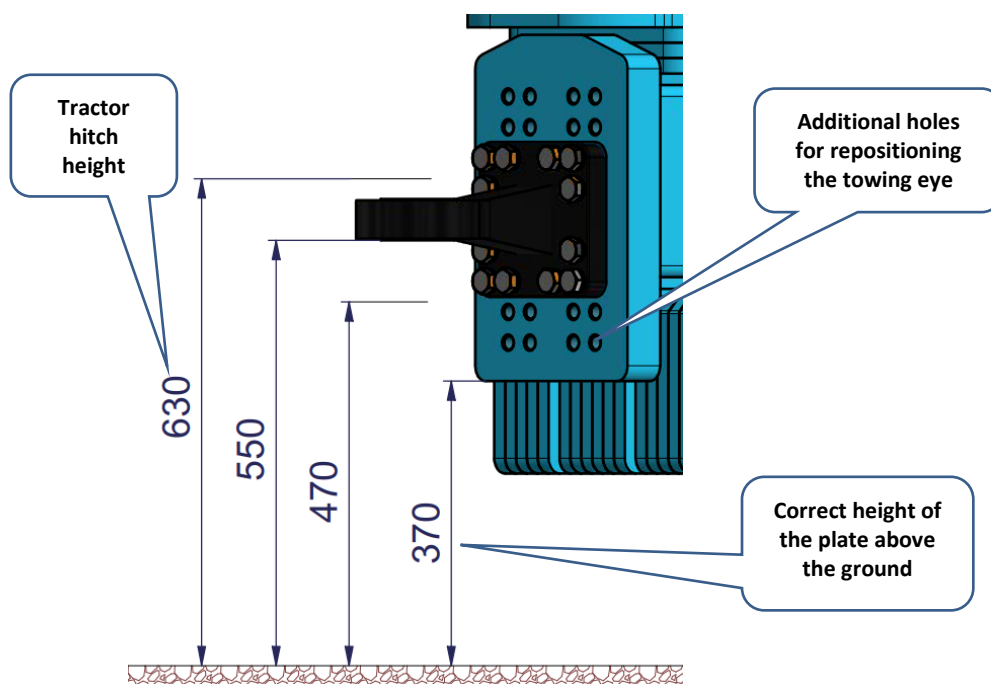
Fig. 30 - Adjustment points



8.1 Drawbar height above ground

The machine's horizontal position, based on the tractor's hitch height, is adjusted by repositioning the hitch into different holes on the machine's mounting plate. The hitch height can be set between 470 mm and 630 mm.

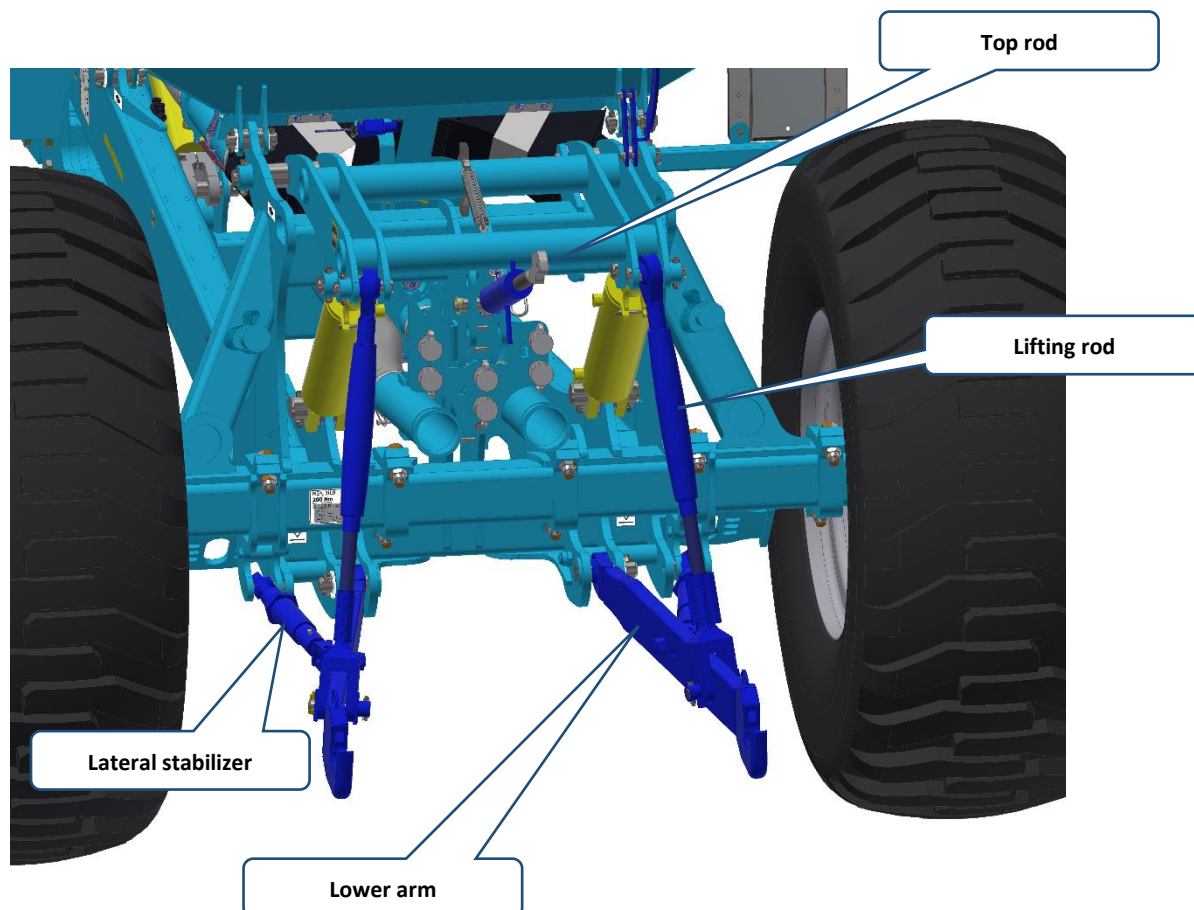
Fig. 31 - Adjustment of hitch height



8.2 Three-point hitch adjustment

The three-point hitch allows adjustment of the components shown in the illustration below. The adjustment is analogous to that of a standard tractor three-point hitch. During operation, the hitch lift hydraulic circuit must always be in the float position. The coupling valve must be in the open position – see chapter 4.3.

Fig. 32 - Rear three-point hitch



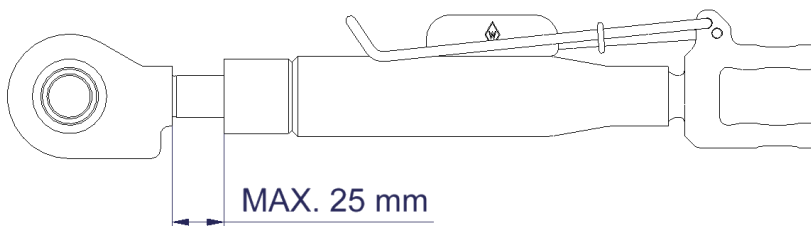
8.2.1 Side stabilizers

- Side stabilizers prevent lateral movement of the attached implement
- During road transport, they must fully restrict lateral movement of the machine
- When operating with mounted implements, the stabilizers must allow some side movement—for example, when turning or hitting ground obstacles.
- With semi-mounted implements, stabilizers must always restrict side movement of the hitch—both during operation and transport

Adjustment

- Stabilizers must always be under compressive load
- They can be damaged if exposed to tensile force
- Side play should be adjusted with the three-point hitch in its top (raised) position
- Stabilizers must not be excessively stressed throughout the hitch's range of motion.
- When adjusted for mounted implements, the stabilizers should allow lateral movement to reduce stress on the hitch
- In the mid-position, the telescopic stabilizer must not be extended more than 25 mm (see Fig. 33)
- This ensures that when the stabilizer on one side is fully retracted during turning, the opposite side remains free and not under tension

Fig. 33 Maximum extension of the side stabilizer



8.2.2 Lift rods

- The length of the lift rods can be adjusted by turning the English (adjustment) nut
- Always adjust the rods to keep the implement level (both rods must be of equal length)
- The nuts on both sides must be threaded equally.
- Minimum rod length 925 mm
- Maximum extension 1 025 mm
- To achieve a greater lifting range, preferably shorten these rods

Pin plate positions:

- a) Vertical (as shown in the figure)
 - The arm can move within the slot
 - Allows lateral float of the attached implement during operation
 - Recommended for mounted implements to reduce frame stress
- b) Horizontal
 - The lower arm has a fixed position relative to the lift rod
 - Lateral float is disabled

Fig. 34 - Lift rod

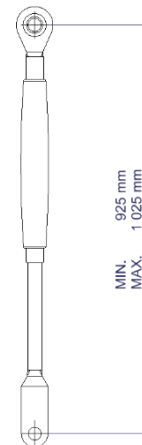
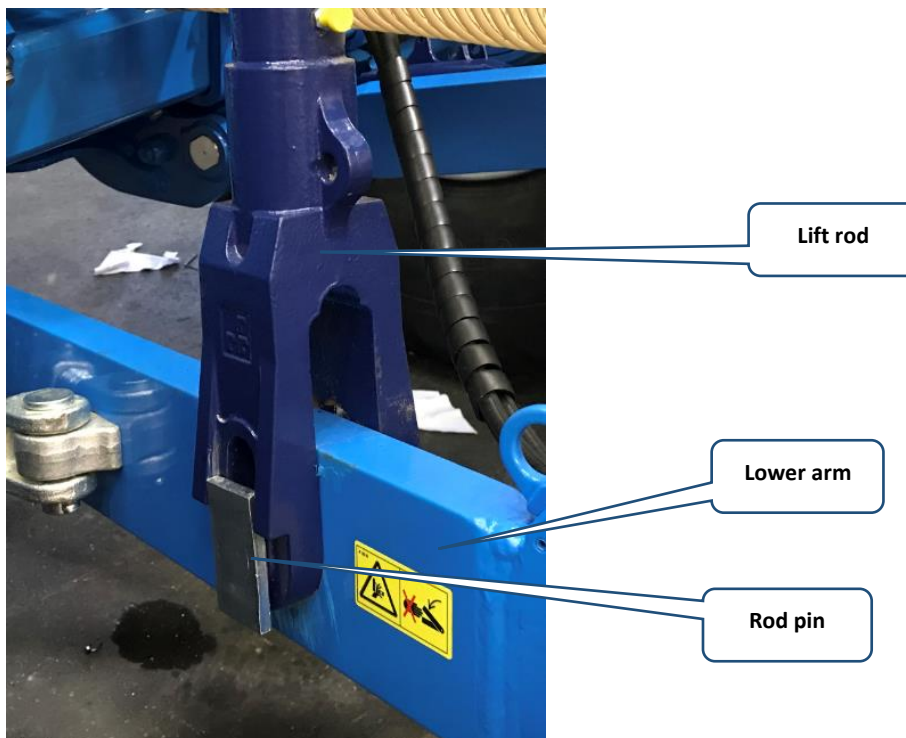


Fig. 35 - Lift rod – pin position



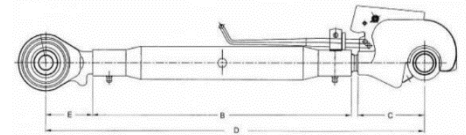
8.2.3 Top rod

The top rod is primarily used to adjust the machine's parallel position relative to the ground. Its length is adjustable, and it can be mounted to the implement using three different holes. The selected hole must ensure that, when the lower links are parallel to the ground, the attachment point on the implement is at least 50 mm higher than the corresponding point on the hopper wagon (see Fig. 37). If possible, always connect the top rod to the highest possible mounting points on both the hopper wagon and the implement.

The maximum length of the rod is $D = 960$ mm.

By extending the rod in working position, the front part of the machine is raised; by shortening the rod, the front part is lowered.

Fig. 36 - Top rod length



8.3 Depth adjustment of the carried machine

- The carried machine must always be equipped with a support roller.
- The adjustment procedure is analogous to that of a standard three-point linkage on a tractor.
- The lift circuit of the three-point hitch on the wagon must always be in the float position during operation.
- First, set the working depth using the support roller.
- Then, adjust the top rod length to ensure the machine is parallel to the ground.
- The aggregation valve (see Chapter 8.2) must always be open during operation.
- If the machine is not equipped with a support roller, the working depth can be adjusted using spacers on the piston rods.



Turning with a radius smaller than 8 meters during operation is strictly prohibited! Headland turns must always be performed with the machine lifted (working tools must be out of the soil)!

Top rod adjustment

- Nastavením horního táhla lze ovlivnit síly působící na stroj a opěrný Adjusting the top rod affects the forces acting on the machine and the support roller
- The intersection point (CPV) of the top and lower rods can be influenced by changing the mounting hole positions on both the carried machine and the hopper wagon.
- The intersection point **CPV** must always remain on the wagon side (i.e. in front of the machine) even during work – the rods must not be parallel
- When the lower rods are parallel to the ground (between points 4 and 2), the connection point on the machine (marked 1) must always be at least 50 mm higher than the connection point on the wagon (marked 3)

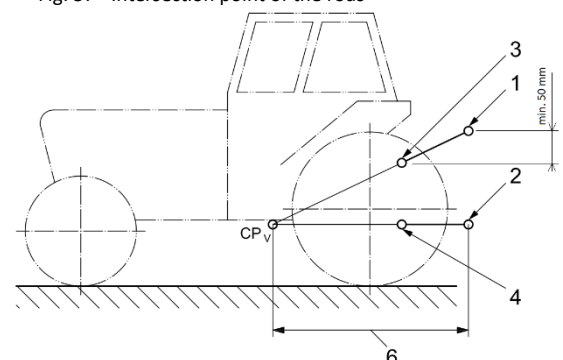
1) Intersection closer to the hitch (top rod in the lower hole on the wagon)

- Lower load on the support roller
- More weight transferred to the wagon axle during work
- Greater lifting height

2) Intersection further from the hitch (top rod in the upper hole on the wagon)

- Higher load on the support roller
- Easier soil penetration of the carried machine
- Increased hitch lifting force

Fig. 37 - Intersection point of the rods



- Less unloading of the drawbar during work (higher load on the tractor's rear axle)

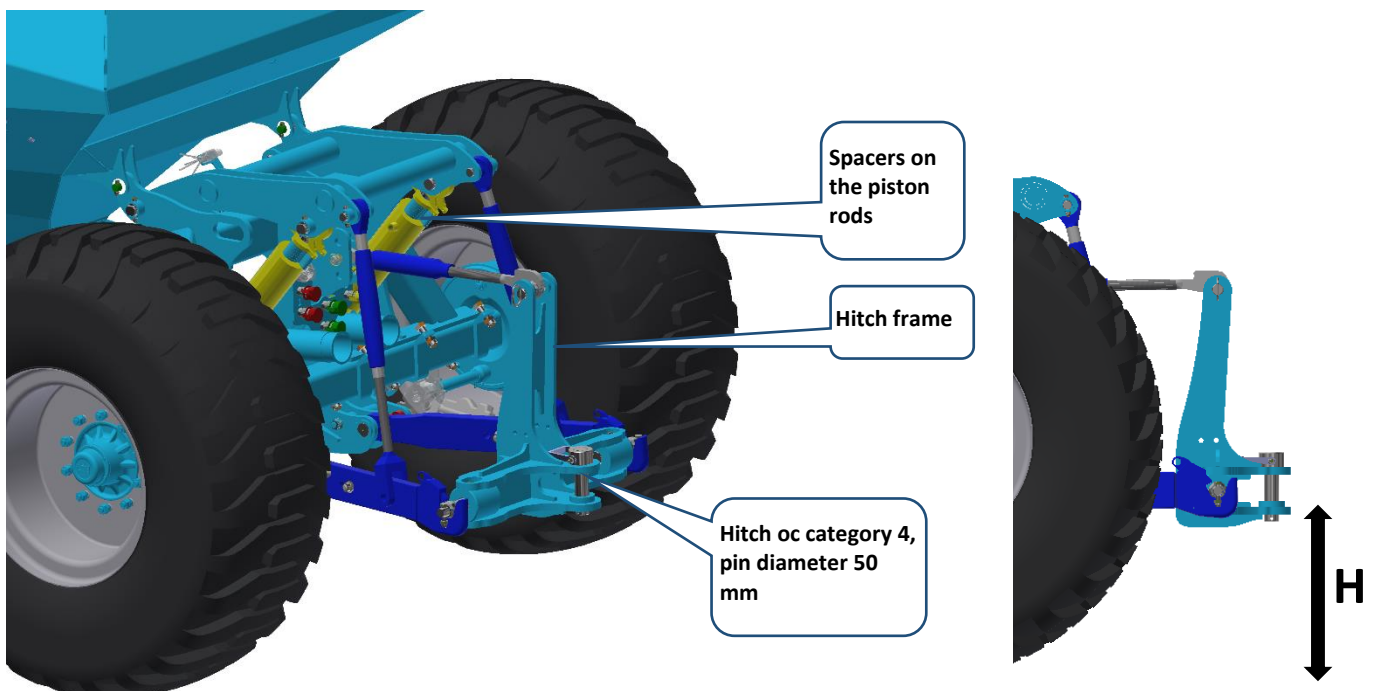
8.4 Adjustment for semi-mounted machines

- The rear hitch is designed for connecting semi-mounted machines
- The hitch corresponds to category 4 drawbars, i.e., a pin diameter of 50 mm
- The attached machine must be equipped with a C50 eye
- The maximum vertical load on the drawbar is 3 000 kg
- The maximum weight of a braked towed machine is 13 000 kg

8.4.1 Connecting the hitch frame to the three-point hitch (TBZ)

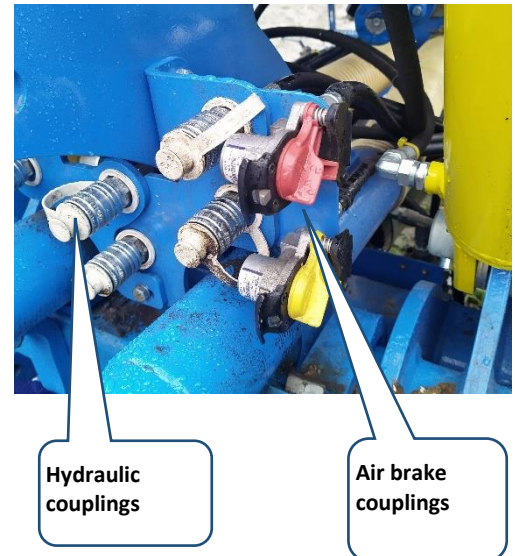
Connect the frame to the machine using a loader, and use the top link pin for lifting

- Use lifting straps and a loader with sufficient capacity — the frame weighs 150 kg
- Set the hitch height **H** (typically around 550 mm from the ground) using spacers on the hydraulic cylinder rods
- One spacer corresponds to approximately 25 mm of hitch height
- Spacers are stored on a holder on the frame
- Adjust the top link (rod) so that the hitch pin is vertical
- Use **lateral stabilizers** to prevent side movement of the frame during both work and transport
- **Lifting rods** must be of equal length



8.4.2 Machine connection

- The machine must be equipped with a C50 hitch eye
- If the towed machine is equipped with dual-line air brakes, they must be connected
- The light plug of the towed machine must also be connected to the lighting socket
- Set up the towed machine according to its user manual, in the same way as when coupling to a tractor
- If negative vertical force (upward) acts on the hitch, the TBZ can be locked against unintended lifting by closing the aggregation valve (see Chapter 8.2). The maximum allowed negative vertical load is 1 000 kg.



- **It is forbidden to make turns with a radius smaller than 8 m when working with the machine! Headland turns must be made with the machine lifted (working tools not in the ground)!**

8.5 Tightness of the pressurized hopper

The machine is equipped with pressurized tanks and dispensers to increase dosing performance.

For the proper function of the dispenser, the pressure in the hopper and the delivery line must be equal. If the pressure differs, the function and performance of the dispensers may be impaired. In case of malfunction, the hopper sealing must be checked.

8.5.1 Most common air leakage points



- The most common air leakage points are shown in the illustration
- Always perform adjustments with the fan turned off.
- Sealing adjustment of the lids is described in the following section.
- If air leaks below the outlet for the calibration test, check whether the lid fits properly onto the pipe and if the clamp provides sufficient pressure.
- If air leaks under the lid beneath the auger, inspect the gasket for damage, ensure sufficient tightening, and check the shape of the lid.

8.5.2 Adjustment of the Hopper Lid Seal

The lid is fitted with a perimeter seal to maintain internal overpressure. If air escapes around the lid, check the integrity of the seal and ensure that the lid is properly secured.

Clamp Adjustment

- If air leakage occurs on the clamp side, the preload of the clamps can be increased.
- The clamps are opened and closed manually using a lever. Both clamps on the lid should have approximately the same preload.
- Loosen the lock nut and adjust the preload by turning the eye bolt (Fig. 38).
- Retighten the lock nut to secure the eye bolt in place.

Lid Pressure Adjustment on the Hinge Side

- On the hinge side, there are three clamps that increase lid pressure using an arm and adjustment screw (Fig. 39).
- The screw preload can be adjusted after loosening the lock nut.
- Turning the screw clockwise increases the pressure on the lid.
- All screws should be adjusted to provide approximately equal preload.
- The screw can be shifted sideways within the bracket to ensure it is always centered on the arm.

Fig. 38

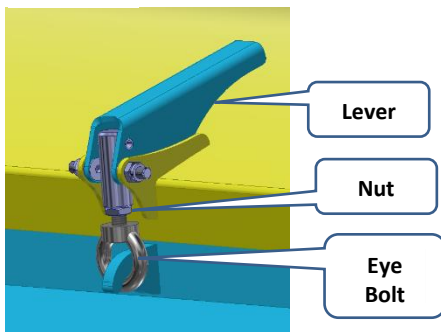
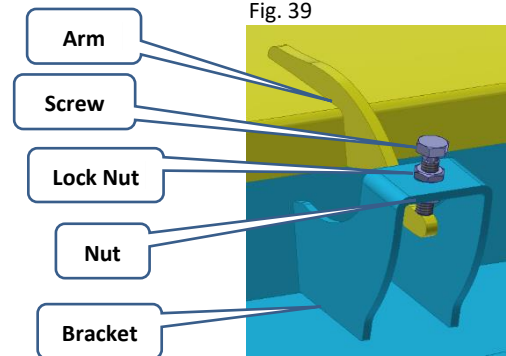


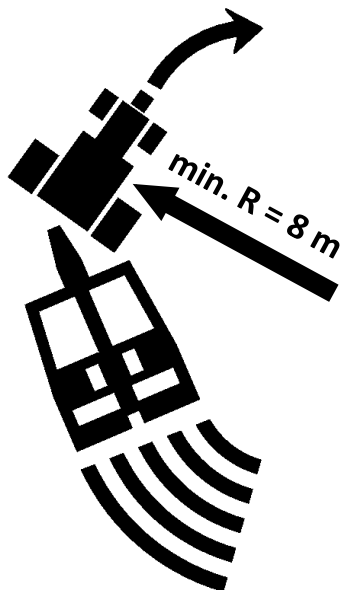
Fig. 39



8.6 Field Operation Guidelines

- It is forbidden to make turns with a radius smaller than 8 meters while operating the machine.
- Headland turns must be performed with the machine lifted (working tools must not be engaged with the ground).
- When operating with a mounted implement, the lower link (three-point hitch) lifting circuit must be in **float position**.
- Every 100 operating hours, check the tightening torque of the wheels, axle clamps, and towing eye.

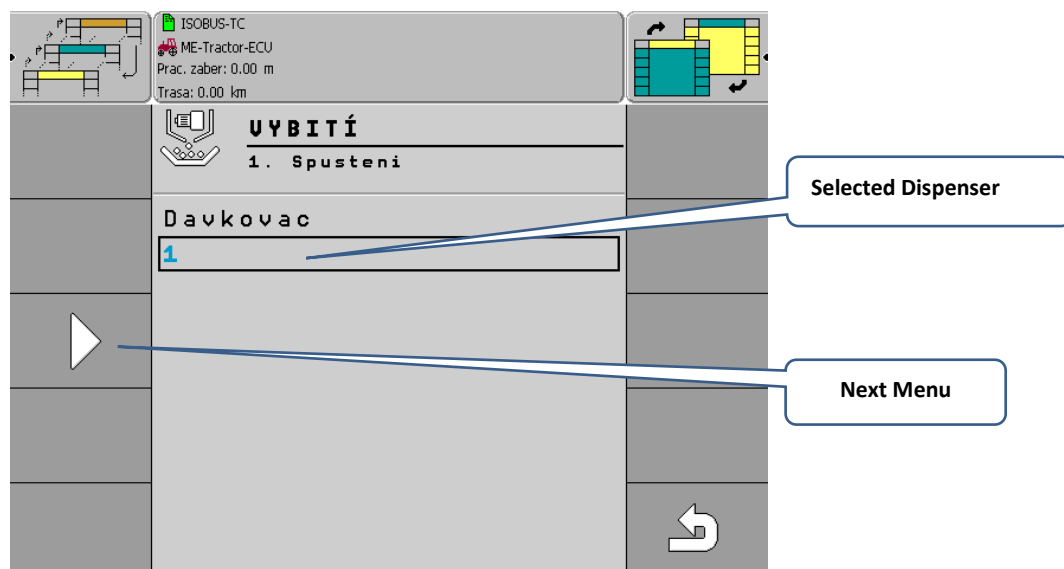
Fig. 40 Minimum Turning Radius



9. FERTILIZATION SHUTDOWN

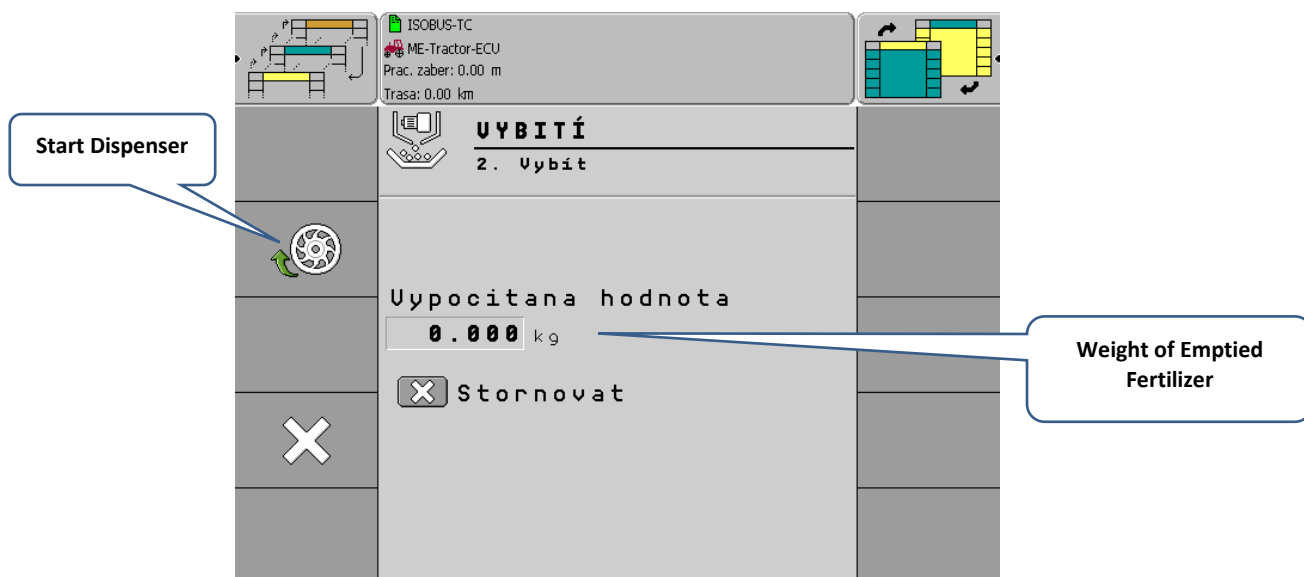
To empty the hopper after completing fieldwork, use the outlets intended for the calibration test. There is a dedicated function in the terminal for emptying. The auger drive, powered by tractor hydraulics, must be active.

1) Select the Dispenser to Be Emptied



2) Emptying

- Emptying is carried out using a button on the terminal or the calibration test button on the machine. The metering unit stops immediately after the button is released.
- The process must be performed separately for each dispenser.
- The amount of fertilizer emptied is displayed on the terminal.



After emptying the dispenser, we recommend driving a few meters **empty**, with the fan running, to remove residual fertilizer from the metering system and the entire pneumatic circuit of the machine.

By removing residual material from the machine in time — especially before storing it for a longer period — you extend its service life and prevent complications during the next operation.

10. FARMET HYDRAULIC SYSTEM

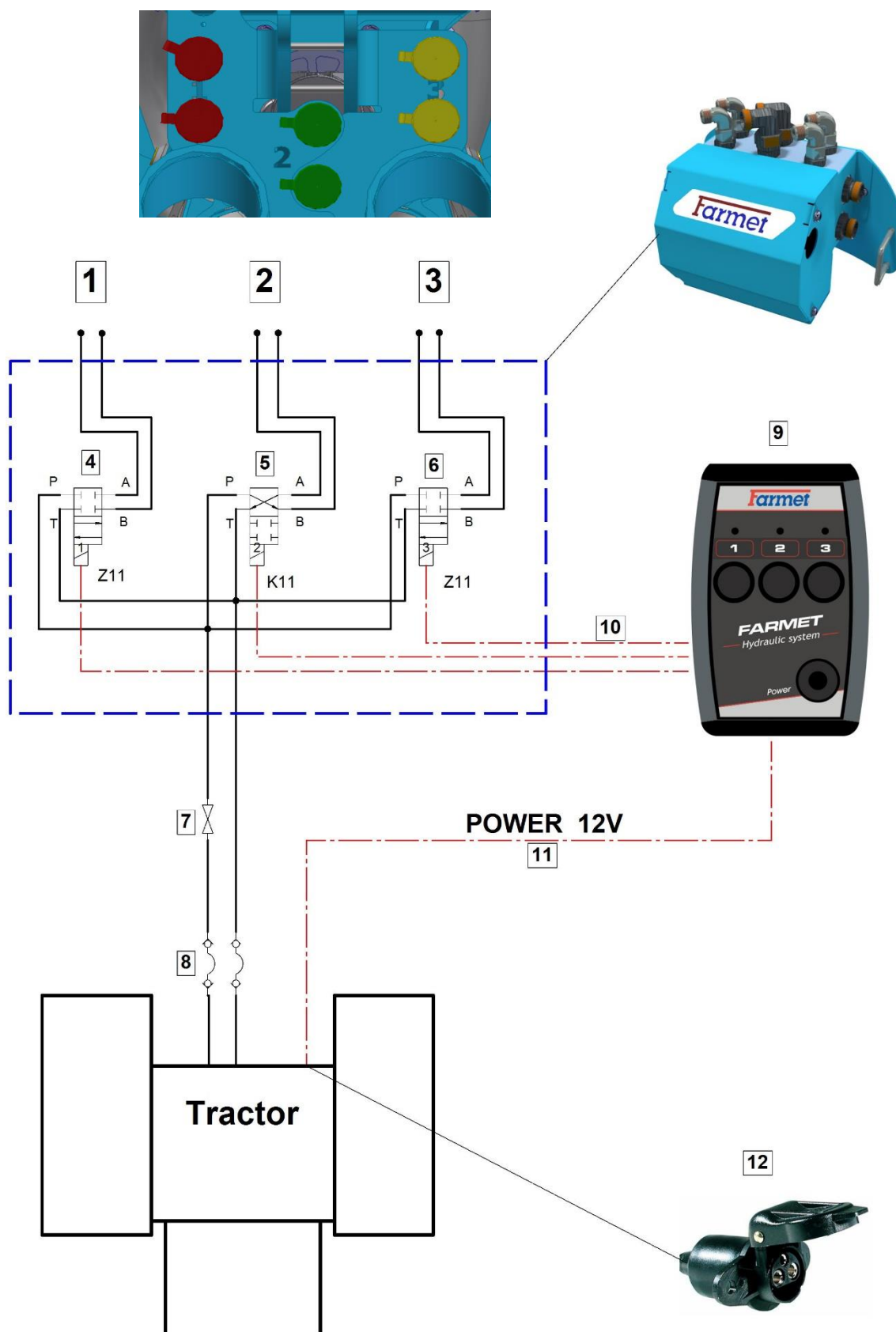
10.1 System Description

FARMET HYDRAULIC SYSTEM is an electro-hydraulic distributor that increases the number of hydraulic circuits available on the tractor. It is an optional accessory primarily used when the attached implement requires more hydraulic circuits than the tractor provides.

The system can split a single tractor circuit into up to three output circuits, which the operator controls directly from the tractor cab. The system is designed so that only one selected circuit can be operated at a time.



10.2 System Wiring Diagram

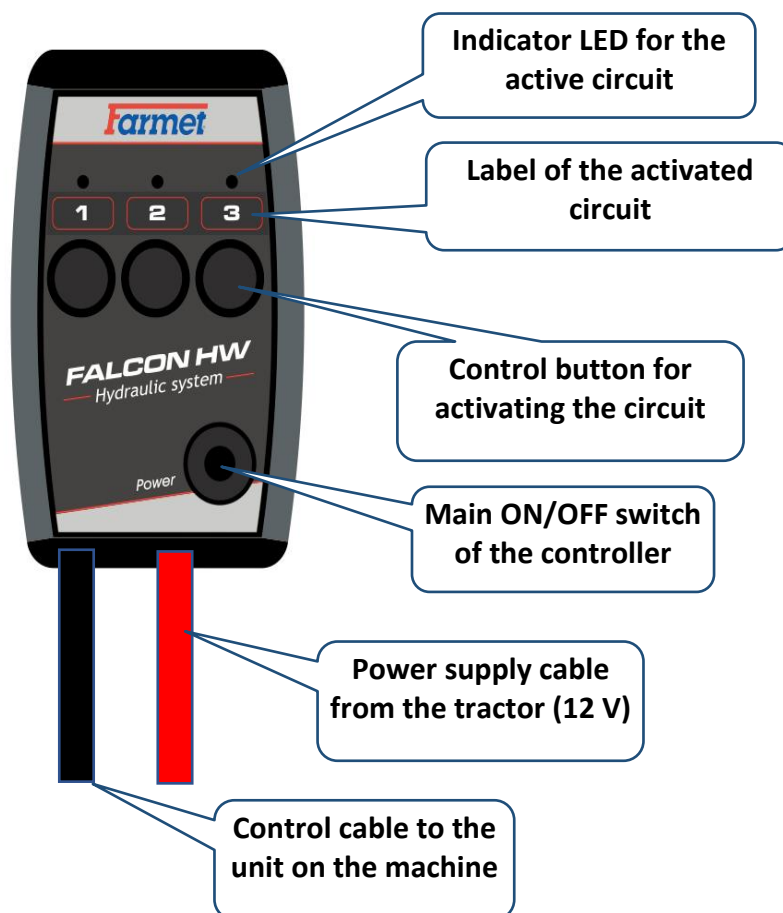


10.2.1 System Component Labels

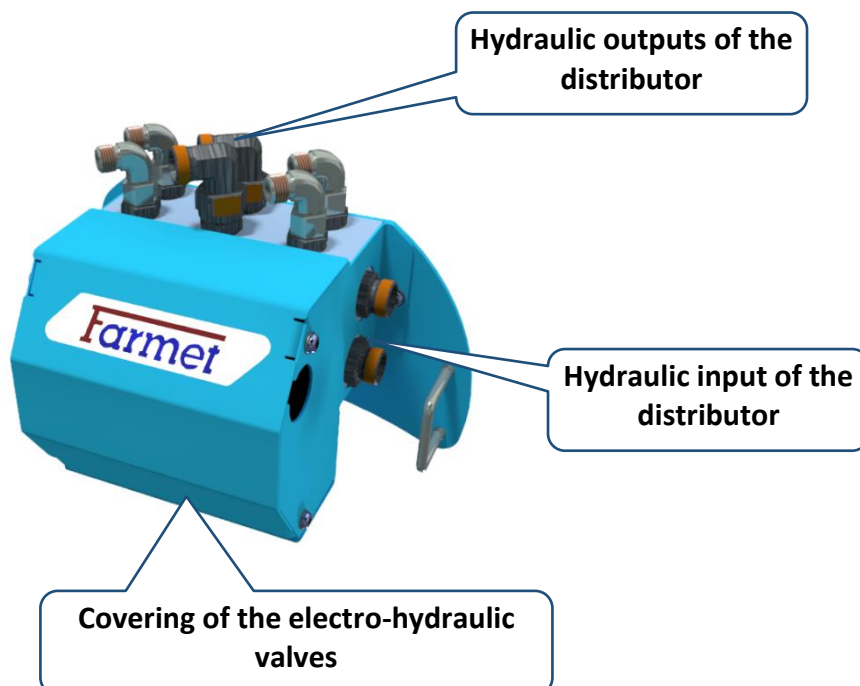
1	Output 1 – Control of Circuit 1
2	Output 2 – Control of Circuit 2
3	Output 3 – Control of Circuit 3
4	Electro-hydraulic Valve of Circuit 1
5	Electro-hydraulic Valve of Circuit 2
6	Electro-hydraulic Valve of Circuit 3
7	Ball Valve
8	Tractor Quick Couplings
9	Controller
10	Electrical Wiring Between Hydraulic Block and Controller, with Disconnect Connector
11	System Power Supply Wiring, Fused
12	Tractor Power Socket

10.3 Component Description

10.3.1 Controller



10.4 Hydraulic Block



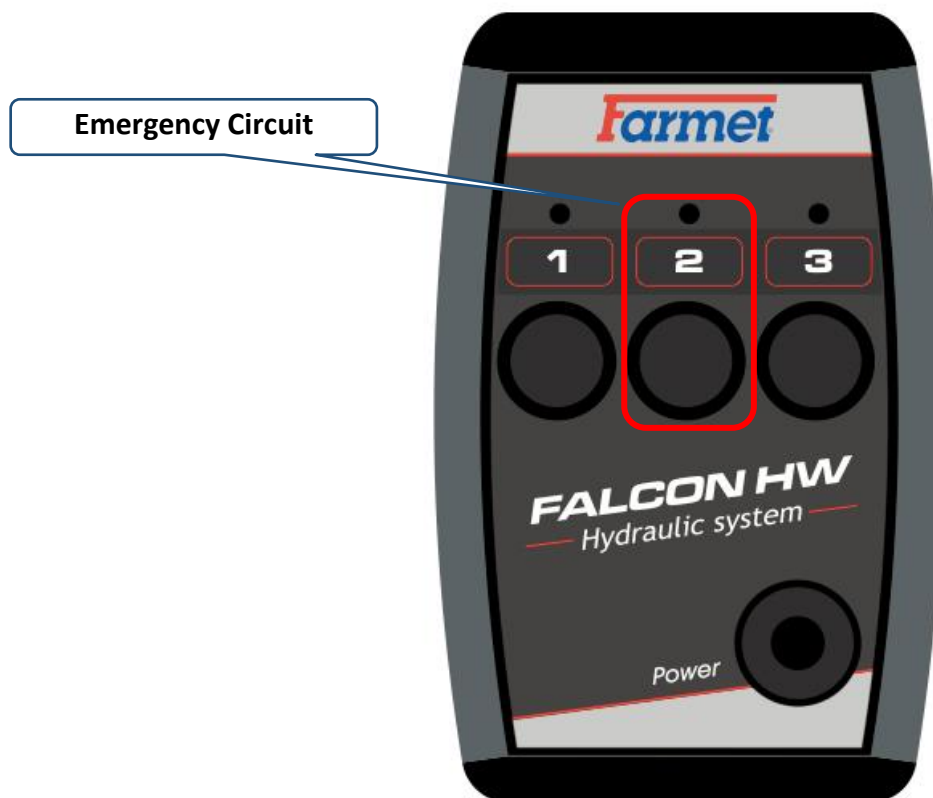
10.5 Power Supply

- The system is powered from the tractor's electrical system.
- For proper operation, the battery voltage must be within the range of 12 V to 14.4 V / 10 A.
- Power is supplied via a three-pin tractor socket or a cigarette lighter socket.
- The power cable is equipped with a small 5 A blade fuse.
- Never replace the fuse with one of a different rating.



10.6 Emergency Mode

- In case of a failure in the tractor's power system, wiring, etc., when the system is not functional, it is still possible to operate circuit number 2 (the middle circuit on the controller).
- This ensures that the machine can always be operated in emergency mode.



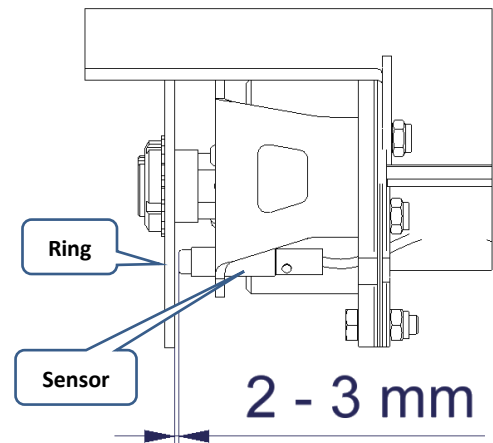
11. MAINTENANCE PROCEDURE

11.1 Speed Sensor Adjustment

- Speed sensors are located on the fan and both dispensers.
- Adjust as needed.
- They operate contactlessly by detecting the proximity of ferromagnetic material.
- Correct sensor gap adjustment is essential for proper function.

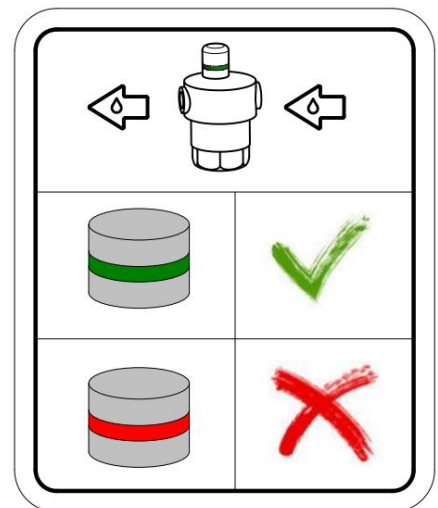
Adjustment

- 1) Set the gap between the sensor and the ring to 2–3 mm.
- 2) Carefully rotate the auger by hand and check the gap.
- 3) Verify that the LED on the sensor flashes regularly during rotation.



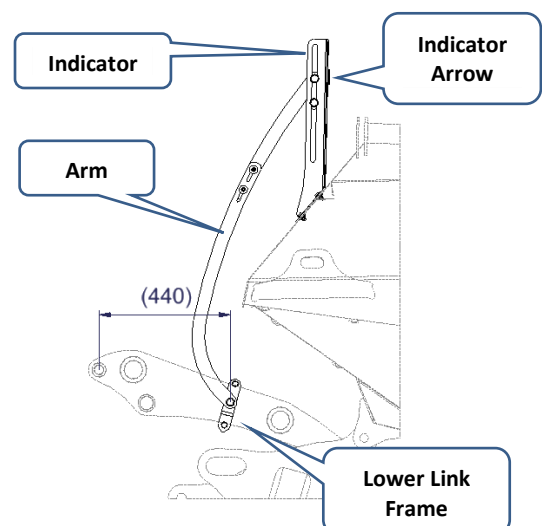
11.2 Pressure Oil Filter

- The pressure oil filter is located on the drawbar and is connected in the dispensers' green hydraulic circuit.
- The filter protects hydraulic valves and motors from contaminants.
- It is equipped with a contamination indicator
- Green – low contamination
- Red – high contamination, replace the filter
- Check contamination weekly.
- Replace the filter once every 2 years regardless of contamination level.



11.3 Adjustment of the Lower Link Position Indicator

- The adjustment is correct if the indicator arrow is at the **MIN** mark in the lower position and at the **MAX** mark in the upper position.
- The arm must **never** bend the indicator in its extreme positions. If this occurs, reduce the movement range or reposition the arm.
- The factory setting is correct and usually does not require adjustment.
- If the indicator arrow needs to be shifted up or down, the arm can be lengthened by sliding it in the oval holes in the middle.
- The basic arm position on the lower link frame is 440 mm (see figure). To reduce the indicator arrow's movement range, move the arm forward on the lower link frame (this increases the specified dimension).

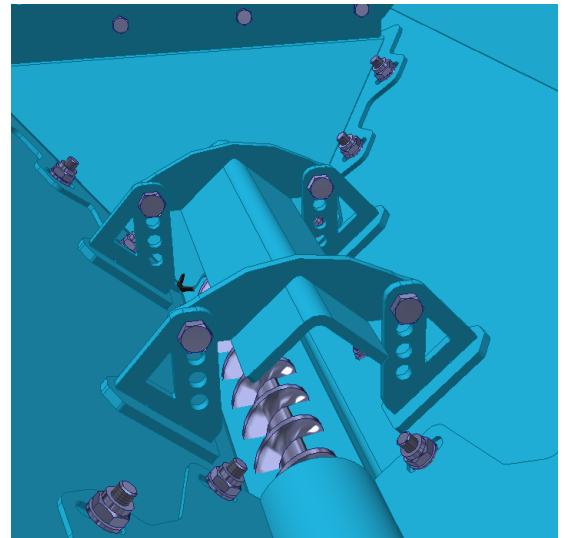


11.4 Brake Adjustment

- Regularly check the condition of the brake linings at least once a year and replace them if necessary.
- Check the brake pedal travel once a year.
- The pedal travel adjustment is done automatically by a special mechanism.
- If the pedal travel during braking exceeds 45 mm, contact your dealer.

11.5 Auger Cover Height

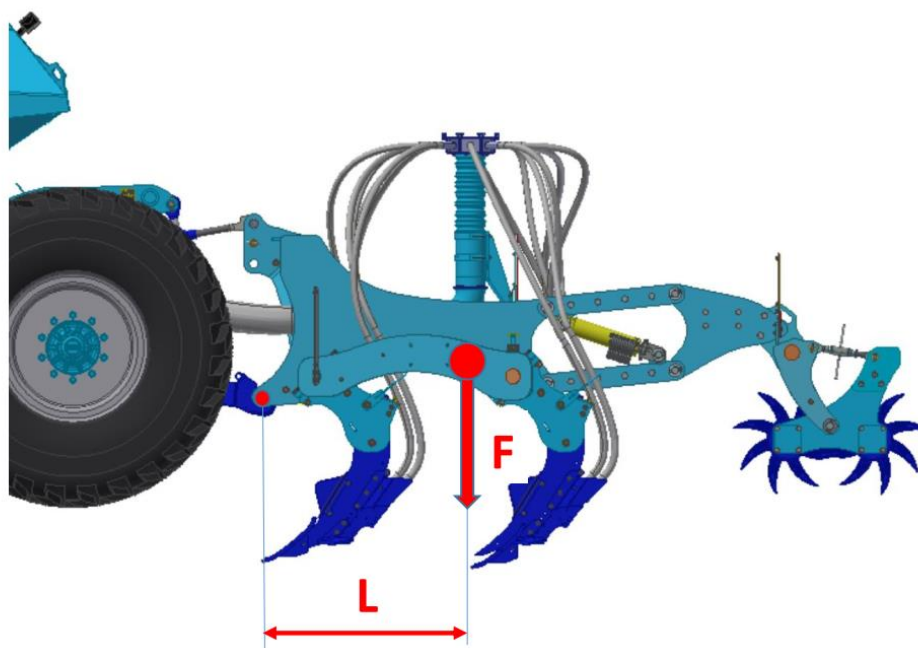
- The auger cover can be adjusted to different height positions.
- The factory default position is the upper position.
- Never operate the machine with the auger covers removed.
- Setting the cover too low may cause bridging and uneven dosing.



12. TECHNICAL DATA

12.1 Lower Link Load Table

- The permissible load of the lower link is determined by the distance of the implement's center of gravity from the arms (L).
- The weight of the implement must not exceed the specified values.
- The lifting force of the lower link is affected by the position of the top link, as described in Chapter 8.3.



Distance of Center of Gravity from Arm Axis L (mm)	500	1 000	1 500	2 000	2 500
Maximum Permissible Implement Weight F (kg)	5 400	5 000	4 400	3 300	2 600

13. ERROR MESSAGES



Fukar
se otaci
prilis pomalu.

Low Fan Speed

Cause:

Incorrectly adjusted speed sensor, low oil flow to the fan hydraulic motor, improperly set priority on the fan circuit.



Pohon
davkovace
stoji.

Dispenser Stopped

Cause:

Incorrectly adjusted dispenser sensor, jammed dispenser.

Pohon 1



Pohon
davkovace
je mimo regul.
oblast.

Dispenser Out of Control Range

Cause:

The machine is running too fast or too slow.

Pohon 2



Zadani
prilis vysoke.

Entered Value Too High

Cause:

An unrealistically high value was entered.



Davkovaci
pohon nemuze
dodrzet
poz. hodnotu.
Pohon 2

Cannot Reach Desired Values

Cause:

Incorrectly adjusted sensor, insufficient flow in the dispenser circuit.



Nadrz
prazdna

Hopper Empty

Cause:

Seed in the machine hopper has run out.

Uyrobek: Seed 1

14. TROUBLESHOOTING


No.	Fault	Possible Cause	Type of cause	Remedy
1	Fan speed fluctuates	Incorrectly adjusted fan sensor	Electronic	Adjust the sensor gap to 2–3 mm according to chapter 11.1
		Faulty fan sensor	Electronic	Check sensor function, replace if faulty.
		Incorrectly set or insufficient oil flow	Hydraulic	Check oil flow setting on tractor controls, adjust properly according to tractor type.
		Too small size of free return quick coupling	Hydraulic	The free return quick coupling size must be at least ISO 20.
2	Dispenser motors do not start after lowering	Incorrectly adjusted antenna sensor	Mechanical	Adjust the sensor so it triggers when the machine is lowered.
		Incorrectly adjusted pressure sensor	Hydraulic	If the sensor is set to too low pressure, any pressure spike will stop the motors. The sensor needs to be tightened.
3	Error: Dispenser does not rotate	Broken screw on hydromotor coupling	Mechanical	Check the screw and coupling on the hydromotor. Replace the screw if needed, or temporarily use an M6 grade 8.8 screw of appropriate length.
		Incorrectly adjusted dispenser sensor	Electronic	The motor rotates, but the sensor does not respond or count rotations; the system behaves as if the motor is stopped. Check if the sensor LED is lit, adjust sensor distance from the star wheel per chapter 11.1

4	Dose per hectare differs by about 50%	Incorrectly entered required dose	Electronic	Check the seeding rate input and the working width setting.
		Improperly performed and entered seeding test	Electronic	Review the calibration test procedure. Exclude errors such as entering bucket weight. Repeat the seeding test.
5	Dose per hectare differs by up to 20%	Incorrectly performed calibration test	Electronic	Review the calibration test procedure. Exclude errors such as entering bucket weight. Repeat the calibration test.
6	Worked hectares do not match the computer reading	Discrepancy between radar speed and actual speed	Electronic	Check radar cleanliness and mounting. Verify radar calibration value according to chapter 5.2
		Incorrect machine working width entered in the computer	Electronic	Check machine geometry settings according to chapter 5.5
7	Air overpressure leak from the hopper	Leakage from one of the hopper lids	Mechanical	Check proper seating of hopper lids; increase clamping force if necessary, see chapter 8.5.1
8	Oil temperature above 80°C	High load on the hydraulic system	Hydraulic	Check tractor control unit settings. Reduce flow to the green circuit (see chapter 4.9) Reduce fan speed. Contact manufacturer, install oil cooler.

15. MACHINE MAINTENANCE AND REPAIRS




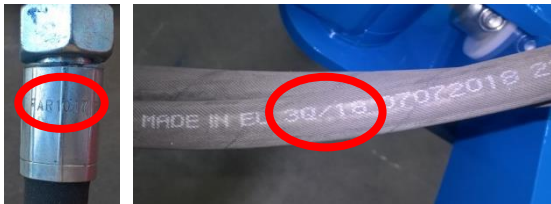
Follow safety instructions for servicing and maintenance.

- Repairs to the machine may only be carried out by a trained person. When leaving the tractor cab, the operator must switch off all hydraulic circuits, appliances on the machine (fan) and the engine, the operator must prevent unauthorized access to the tractor.
- Worn discs are only replaced when the machine is at a standstill (means the machine is stationary and not working).
- If it is necessary to weld during repairs and have the machine connected to the tractor, the supply cables must be disconnected from the alternator and battery.
- Check the tightening of all screw and other mounting connections on the machine before each using of the machine.
- Continuously check the working parts of the machine for wear or replace these worn working parts with new ones.
- Adjustment, cleaning and lubrication of the machine may only be performed when the machine is at standstill (means the machine is stationary and not running).
- When working on the raised machine, use a suitable support device supported in suitable places.
- When adjusting, cleaning, maintaining and repairing the machine, you must secure those parts of the machine that could endanger the operator by falling or other movement.
- Repairs to the hydraulic circuits may only be carried out disassembled and the machine must be laid on the ground by the working units.
- When repairing the hydraulic circuits of the machine, it is first necessary to depressurize the hydraulic circuits of the machine.
- Use only the areas marked with self-adhesive labels with a chain symbol to catch the machine when handling with a lifting device „“.
- In the event of a fault or damage to the machine, switch off the tractor engine immediately and secure the engine against restarting, secure the machine against movement — only then you can remove the fault.
- Only use original spare parts, suitable tools and protective equipment when repairing the machine.
- Regularly check the prescribed tire pressure of the machine and the condition of the tires. Carry out any tire repairs in a specialist workshop.
- Keep the machine clean.



Do not clean hydraulic cylinders (piston rods), bearing and electronic parts with a high- pressure cleaner or a direct stream of water. Seals and bearing are not waterproof at high pressure.

15.1 Maintenance plan

MAINTENANCE PLAN:					
Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Generally a machine					
<ul style="list-style-type: none"> Visual inspection of the machine Monitoring of unwanted sounds, vibrations and excessive wear. 	X				
<ul style="list-style-type: none"> Inspection of key nodes: pins, bearings, cylinders, working bodies 	X		X	X	
<ul style="list-style-type: none"> Cleaning the machine Storage of the machine ideally under the roof Record machine raid / season (ha) 		X		X	
<ul style="list-style-type: none"> Complex visitation Frame inspection 	X			X	
 <p>Do not clean hydraulic cylinders, bearings, electrical and electronic parts with a high-pressure cleaner or a direct stream of water. Seals and bearings are not waterproof at high pressure.</p>					
Hydraulic system					
Check the function, tightness, fastening and abrasions of all hydraulic components and hoses		X	X		
Pressure filter – contamination check		X			
Pressure filter – cartridge replacement	As needed, at least once every 2 years				
Hydraulic hoses – replacement: <ul style="list-style-type: none"> Damage hose outer casing (mechanically or swollen) Fluid leakage (especially at the tip) Bumps or blisters on the hose Deformed or corroded terminal Loose end – the hose rotates 	X			X	
Hydraulic hose– replacement: <ul style="list-style-type: none"> Hose life exceeded 					
					6 years
!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortable before a secondary problem, accident or health threat arises.					

MAINTENANCE PLAN:

Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval	
Screw connections						
Visual inspection of screw and hydraulic connections, tighten loose connections with the appropriate tightening torque (table of tightening torques)	X			X		
Wheels – Tighten all wheel nuts <ul style="list-style-type: none">For the first time after 10 hours of operationAfter changing the wheel after 10 hours of operation <table><tr><td>M 22 x 1,5</td><td>440 Nm</td></tr></table>	M 22 x 1,5	440 Nm			X	100 h
M 22 x 1,5	440 Nm					
Axle clamps <ul style="list-style-type: none">Tighten all axle clampsFollow specified torque <table><tr><td>M 24, 10.9</td><td>200 Nm</td></tr></table>	M 24, 10.9	200 Nm				100 h
M 24, 10.9	200 Nm					
Drawbar eye bolts <ul style="list-style-type: none">Tighten after 10 hours following replacementThen tighten at specified intervals <table><tr><td>M 20, 10.9</td><td>280 Nm</td></tr></table>	M 20, 10.9	280 Nm				100 h
M 20, 10.9	280 Nm					
Brake system						
Brake lines and hoses - check function, tightness, fastening and clamping or breakage	X		X	X		
Brake components - check function, tightness, fastening	X		X	X		
Aerator – drainage by drain valve		X		X		
Drain valve – verification of functionality, cleaning and replacement of seals			X	X		
Pipe filter - cleaning			X	X		
Brake/parking brake – functional check, step adjustment 25-45mm	X					
Brake lining – check the condition of the brake lining, min. thickness 3 mm				X		
Wheels / axle						
Tire pressure check 650/65-30,5	X			X		
Transport axle bearings – check and possible adjustment of play (work in the workshop)				X		

MAINTENANCE PLAN:

Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Pneumatic system					
Fan: Speed setting function	X				
Fan guard: <ul style="list-style-type: none"> Check condition, remove debris 	X				
Fan impeller: <ul style="list-style-type: none"> Check condition and fastening, remove debris Check fan drive fastening 		X			
Fan, seed hoses, mixer: <ul style="list-style-type: none"> Check for leaks, pinching, blockages, overall condition 	X			X	
Hydraulic couplings and hoses: <ul style="list-style-type: none"> Check all components for leaks and flow 	X				
Distributor: <ul style="list-style-type: none"> Check for foreign particles. Unscrew distributor cover and inspect outlets 	X				
Dispenser					
Check overall condition, settings, wear, and sealing			X		
Check for presence of foreign objects	X				
Check condition of drive and motor bearings		X			
!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortable before a secondary problem, accident or health threat arises.					

MAINTENANCE PLAN:

Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Damage check, possible replacement		X	X		
Safety device					
Lighting and safety hatched boards – check condition, functionality and cleanliness	X		X		
Warning and safety labels – presence and legibility check		X			
After season					
The whole machine <ul style="list-style-type: none"> ● Perform treatment and cleansing; do not spray plastic parts with oil or similar means ● Spray the piston rods of the hydraulic cylinders with suitable anti-corrosion agents ● Check the strength of all screw and plug-in connections (see table of tightening torques) ● Check electrical wiring for damage and replace if necessary 					
Brake system <ul style="list-style-type: none"> ● Before the last ride, preserve with antifreeze (approx. 0,1l) without ethanol, use the one recommended by the tractor manufacturer ● Secure the machine against movement with wheel chocks ● Pressurize the brake system, release the parking brake, and insert emergency release screws into the brake cylinders as described in chapter 4.6.5 ● Drain air from the air reservoir and close the brake lines. The service and hand brakes must be released during winter to prevent sticking to the brake drum. ● Before the season starts, the screws must be removed again for proper brake function. 					
Lubrication points <ul style="list-style-type: none"> ● Lubricate all lubrication points according to the lubrication schedule, using NLGI 2 grade grease 					
!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortable before a secondary problem, accident or health threat arises.					

15.2 Machine Lubrication Plan

Tab. 9

LUBRICATION POINT		INTERVAL*	LUBRICANT
Eye of the drawbar	Fig. 41	50 h	NLGI Grade 2 Grease
Lift arms, side stabilizers		100 h	
Auger bearings (4x, maximum 3 baler lifts)	Fig. 42	50 h	
Axle bearings		250 h	
Brakes – shafts and levers		250 h	

* Lubrication points should also be greased at the beginning and end of the season.

Fig. 41 – Drawbar joint

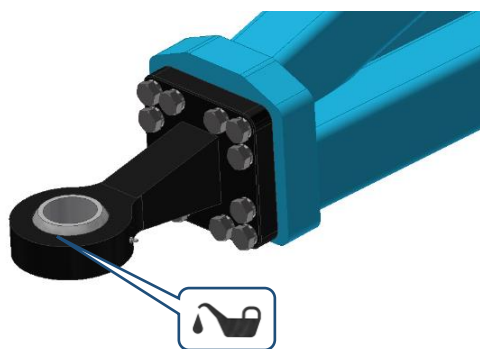
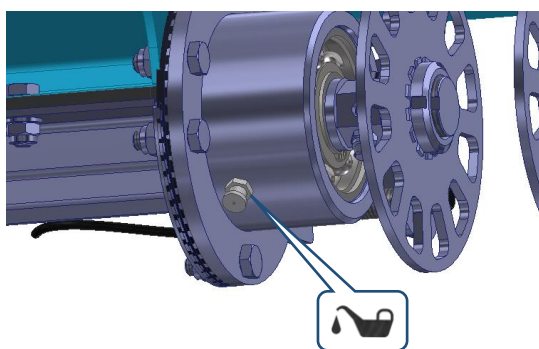


Fig. 42 – Auger bearings



15.3 Lubricant handling

- Treat lubricants and oils as hazardous waste in accordance with applicable laws and regulations.
- Protect yourself from direct contact with oils and lubricants by using gloves or protective creams.
- Wash oil marks on the skin thoroughly with warm water and soap. Do not clean the skin with petrol, diesel or other solvents.
- Oil or grease is toxic. If you have swallowed oil or grease, see a doctor immediately.
 - Protect children from contact with lubricants and oils.

15.4 Tire pressure

- Tyres: 650/65-30.5 169A8 / 179A8
- Recommended pressure: 2.2 bar
- For lower loads, the pressure may be reduced according to the tyre manufacturer's recommendations.

15.5 Recommended Tightening Torques

SCREW JOINTS	TIGHTENING TORQUE	NOTE
M8x1	8 Nm	Set screws of bearing housings
M8 (8.8)	25 Nm	
M12 (8.8)	87 Nm	Pillow block bearings
M16 (8.8)	210 Nm	
M20 (8.8)	410 Nm	Locking screws
M24 (8.8)	710 Nm	
HYDRAULIC AND PNEUMATIC CONNECTIONS		
M16x1,5	60 Nm	Hydraulic fittings, Pneumatic fittings
M22x1,5	140 Nm	Hydraulic fittings, Pneumatic fittings

16. SHUTTING DOWN THE MACHINE

Shutting down the machine for a longer period of time:

- Park the machine under a roof if possible.
- Park the machine on a level and firm surface with sufficient capacity.
- Before storing the machine, remove dirt and preserve it so that the machine does not suffer any damage during storage. Pay special attention to all marked lubrication points and lubricate them properly according to the lubrication schedule.
- Park the machine with the frames folded in the transport position. Support the machine on its axle and the parking leg, and secure it against unintentional movement using wheel chocks or another suitable means.
- Secure the machine against unauthorized access.

17. ENVIRONMENTAL PROTECTION

- Regularly check the hydraulic system for leaks.
- Preventive replacement or repair of hydraulic hoses or other parts of the hydraulic system showing signs of damage before an oil leak occurs.
- Check the condition of the hydraulic hoses and replace them in good time. The service life of hydraulic hoses also includes the time for which they were stored.
- Dispose of oils and fats in accordance with applicable waste laws and regulations.

18. END OF LIFE MACHINE DISPOSAL

- When disposing of the machine, the operator must ensure that steel parts and parts in which hydraulic oil or grease moves are distinguished.
- The operator must cut the steel parts in accordance with the safety regulations and hand them in at a collection point for secondary raw materials. They must proceed with other parts in accordance with the applicable waste laws.

19. SERVICING AND WARRANTY CONDITIONS

19.1 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.

19.2 Warranty

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



2019/002/03

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☒ **DEKLARACJA ZGODNOŚCI WE**

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 552 03 Česká Skalice
 Czech Republic
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2. ☒ Strojní zařízení: - název : **Zásobníkový vůz**
☒ Machine: - name : **Tank wagon**
☒ Fabrikat: - Bezeichnung : **Behälterwagen**
☒ Machinerie: - dénomination : **Wagon porte-conteneurs**
☒ Сельскохозяйственная машина: - наименование : **Усиленный несущий бункер**
☒ Urządzenie maszynowe: - nazwa : **Modułowy zbiornik**
- typ, type : **FALCON**
 - model, modèle : **FALCON HW**
 - PIN/VIN :
- ☒ výrobní číslo :
 - ☒ serial number
 - ☒ Fabriknummer
 - ☒ n° de production
 - ☒ заводской номер
 - ☒ numer produkcyjny:

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

4. ☒ Normy s nimiž byla posouzena shoda: ☒ Standards used for consideration of conformity: ☒ Das Produkt wurde gefertigt in Übereinstimmung mit folgenden Normen: ☒ Normes avec lesquelles la conformité a été évaluée: ☒ Нормы, на основании которых производилась сертификация: ☒ Normy, według których została przeprowadzona ocena: ČSN EN ISO 12100, ČSN EN ISO 4254-1, ČSN EN 14018+A1.

☒ Schválil ☒ Approve by
☒ Bewilligen ☒ Approuvé
☒ Утвердил ☒ Uchwalil

date: 02.01.2024

Ing. Petr Lukášek
 Technical director



V České Skalici

date: 02.01.2024

Ing. Tomáš Smola
 Director of the Agricultural Technology Division

