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HYDRAULIC LIFTING OF HOE SECTION-CONTROL

SET-UP INSTRUCTION

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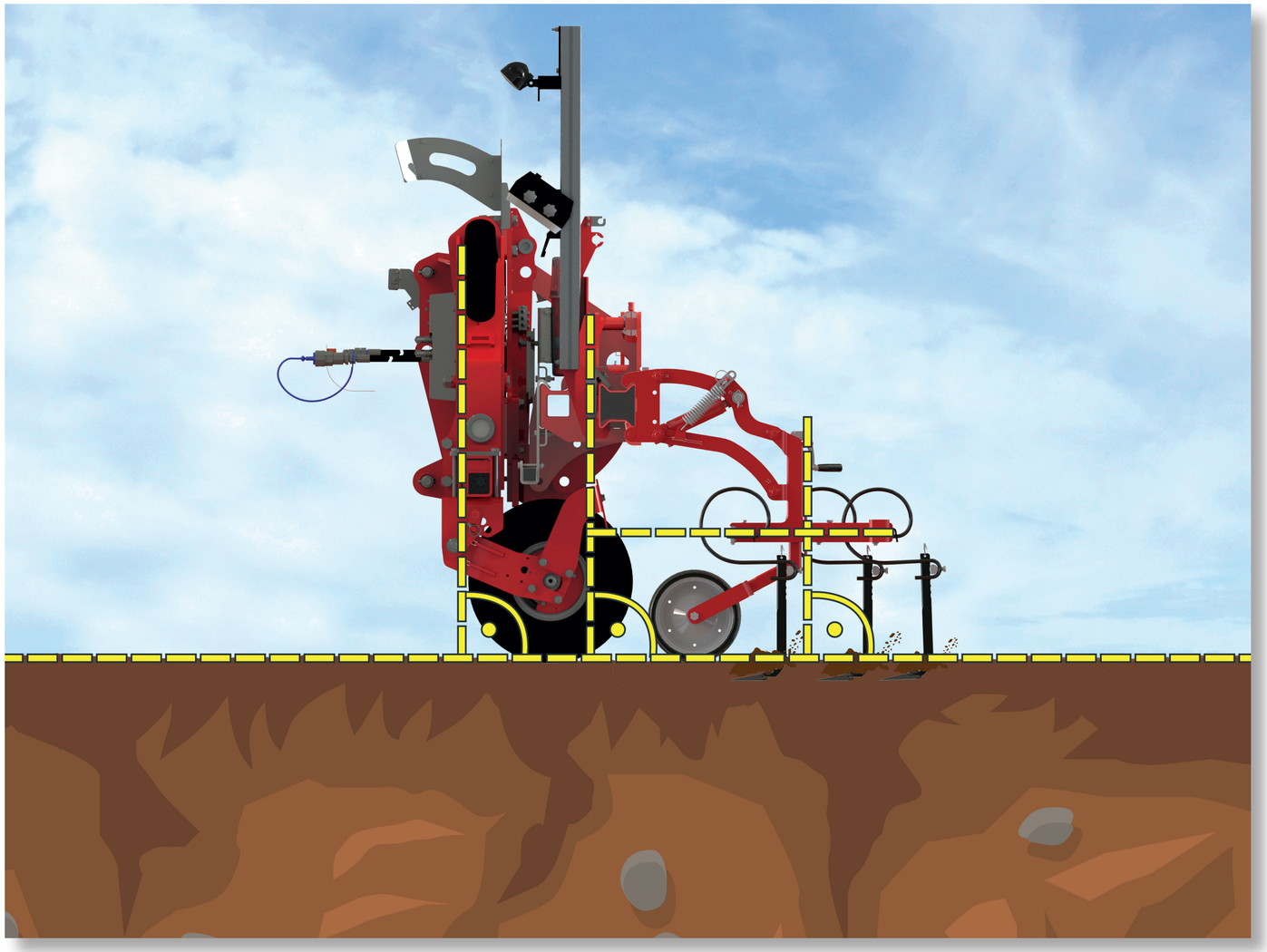
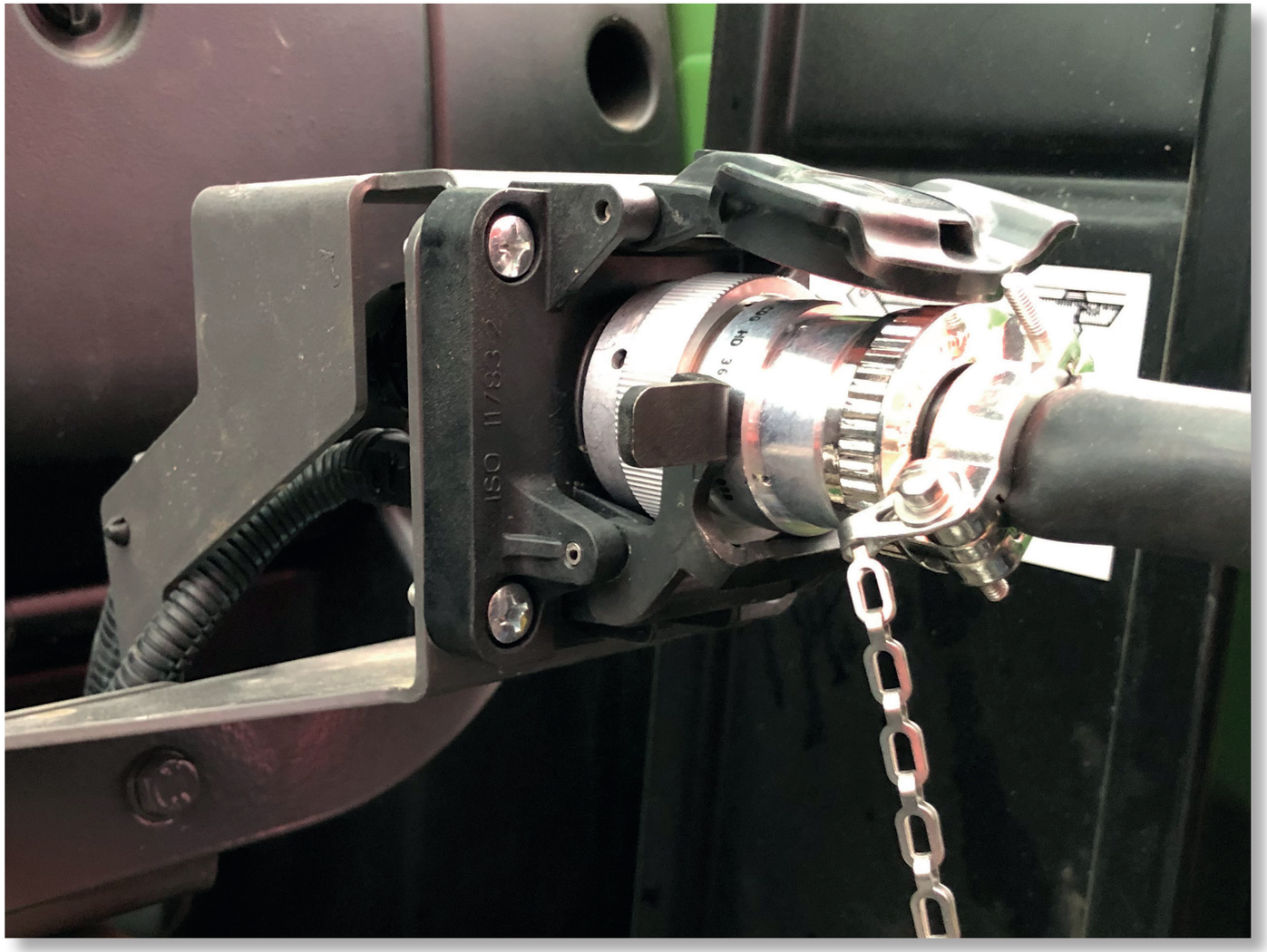


» Correct mounting of the machine - see operating manual **ROW-GUARD** or **CHOPSTAR**

» **Power-Beyond:**
If the machine is equipped with Power Beyond, turn off the tractor before connecting the hoses.

» **Without Power Beyond:**
If the machine is without Power Beyond connection, one single-acting control valve and a pressure-less return valve are required. A constant oil flow of approx. 25l/min is required. The parallelograms should take approx. 2 seconds for lifting.



» Connect the ISOBUS cable of the row-crop cultivator with the ISOBUS socket of the tractor.

- During road transport all parallelograms must be lowered, independently of the system (Load Sensing / no Load Sensing)
- Exceptions are machines with **double fold frames** or **CHOPSTAR-PRIME**. Here the following points (a,b,c) do NOT apply. On these machines, the elements for road transport must be **locked at lifted position**. To do this, close all existing locking valves on the hydraulic hoses so that the elements cannot move.

a. **Power Beyond with external tractor monitor**
Before folding / unfolding and road transport all parallelograms have to be lowered to avoid collisions. Switch off the external control monitor. This is a protection against operating errors while driving on the road. The system must not be activated during road transport (parallelograms lowered), otherwise dangerous situations can arise!

b. **Power Beyond with internal tractor monitor**
Before folding / unfolding and road transport all parallelograms have to be lowered to avoid collisions. The application "Chopstar" of the internal monitor must be disabled. This is a protection against operating errors while driving on the road. Please ask your tractor dealer to disable your ISOBUS application. The system must not be activated during road transport (parallelograms lowered), otherwise dangerous situations can arise!

c. **Without Power Beyond with external monitor / Without Power Beyond with internal tractor monitor**
Before folding / unfolding and road transport all parallelograms have to be lowered to avoid collisions. Therefore, the respective hydraulic control unit which is used for the oil supply of the parallelograms must be switched to floating position. This is a protection against operating errors while driving on the road. In addition, the external operator monitor can be switched off or the ISOBUS application in the tractor‘s internal operator monitor can be disabled. The system must not be activated during road transport (parallelograms lowered), otherwise dangerous situations may arise!

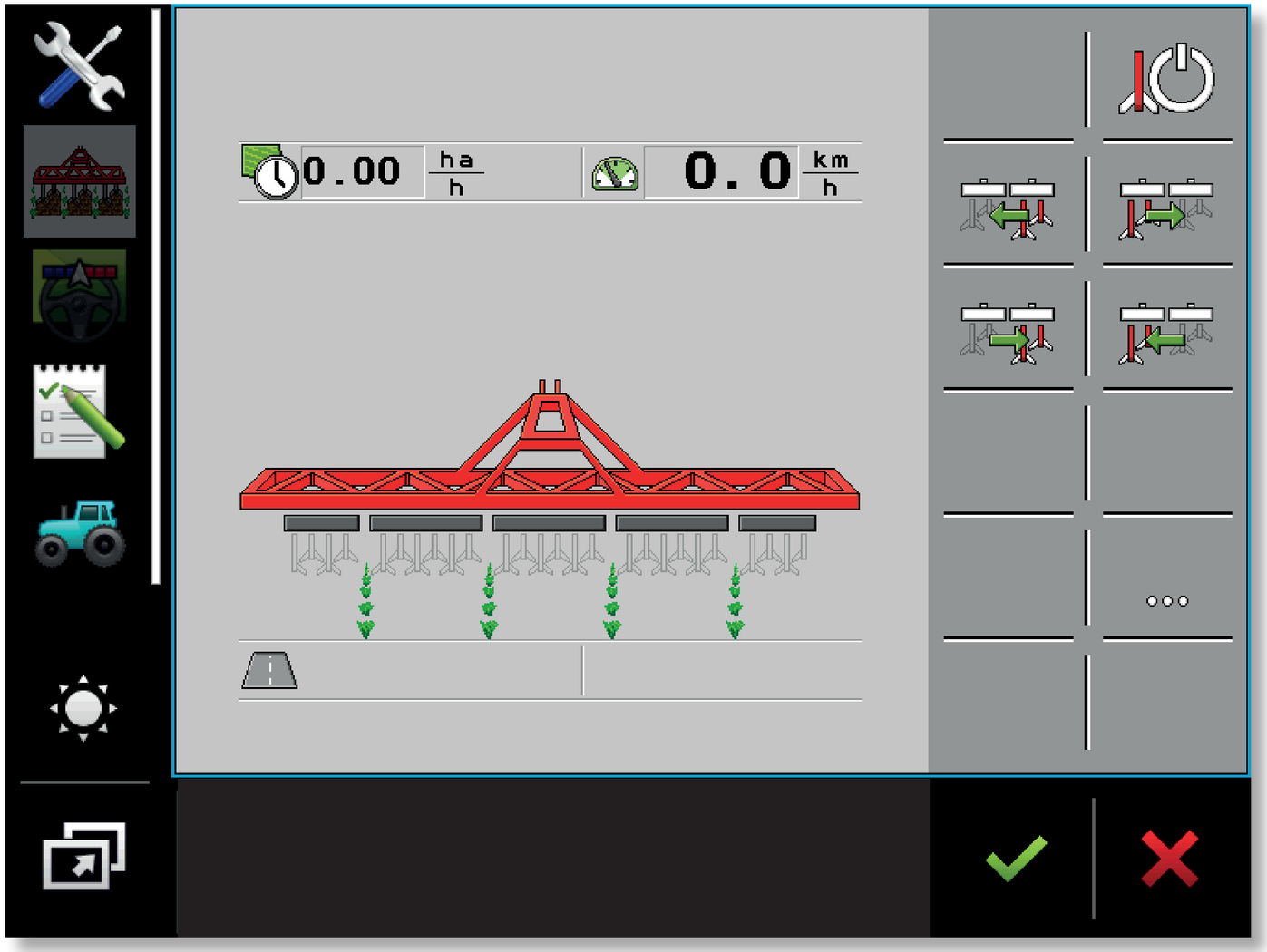
Due to the complexity and the numerous adjustment and variation possibilities that a hoeing machine offers, the following points must be observed:

When adjusting row spacing, number of rows, hoeing belt width, finger hoe position or finger hoe adjustment increased caution must be exercised during the first folding operation!

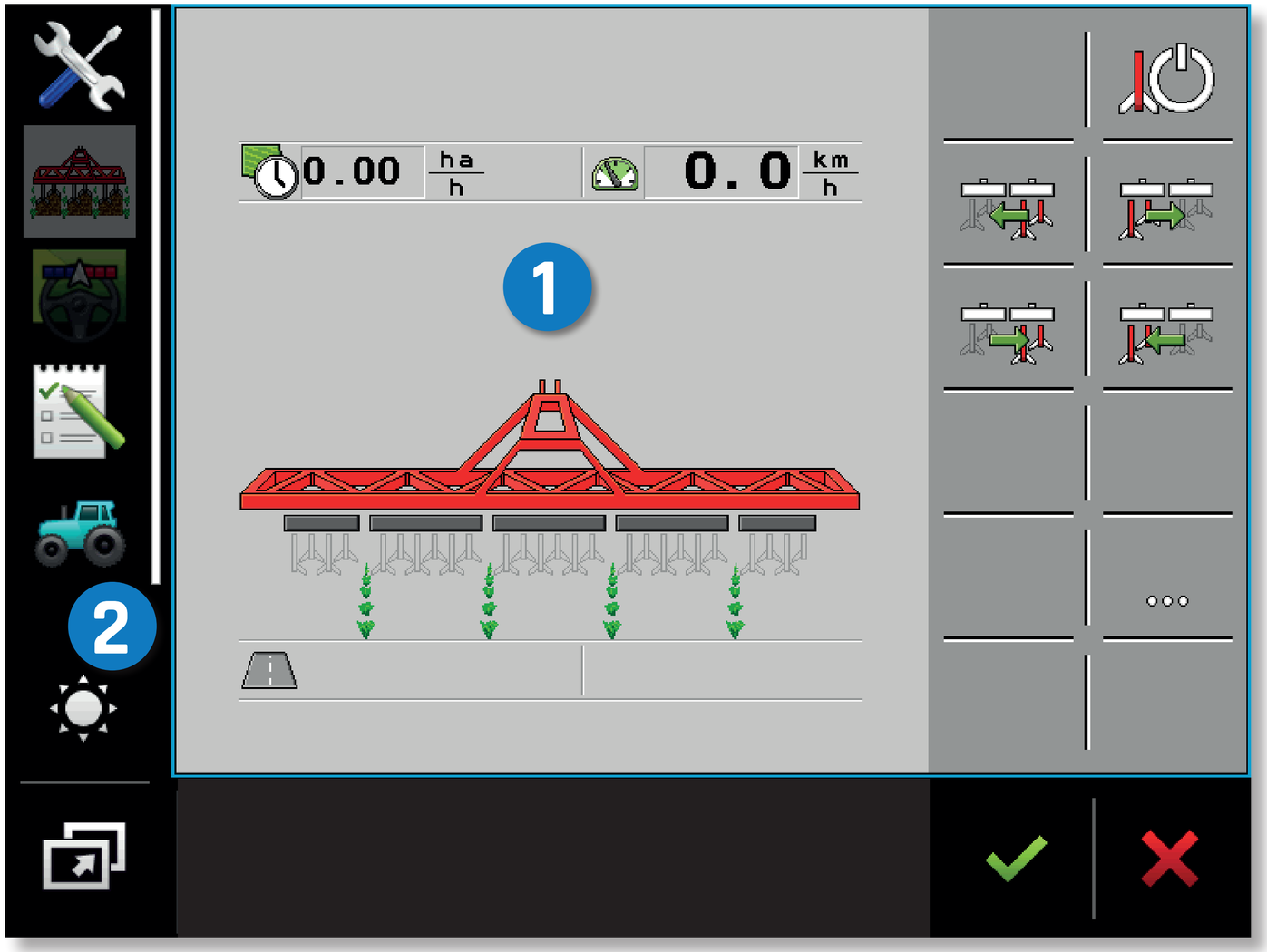
The above-mentioned adjustments change the movement geometry of various components and there is a possibility of device-internal collisions during the folding process! In addition, the permissible transport width may be exceeded! In such cases the position of certain components must be changed before folding or before driving on public roads!

At delivery, the stabilising wheels are usually mounted at highest position.

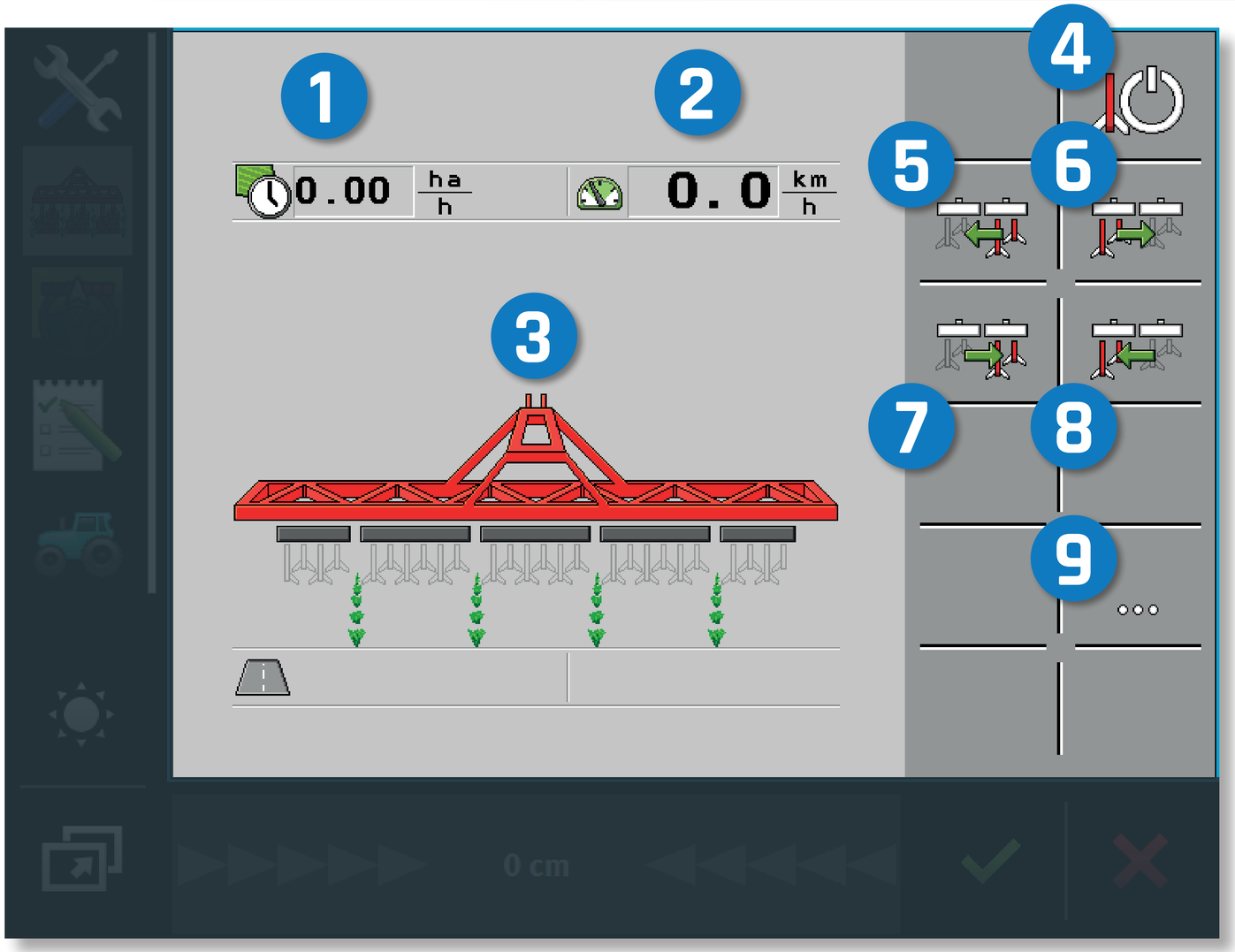
To achieve the maximum lifting height of the hydraulic parallelograms, mount the wheels with the bolt at the lowest position (see markings)



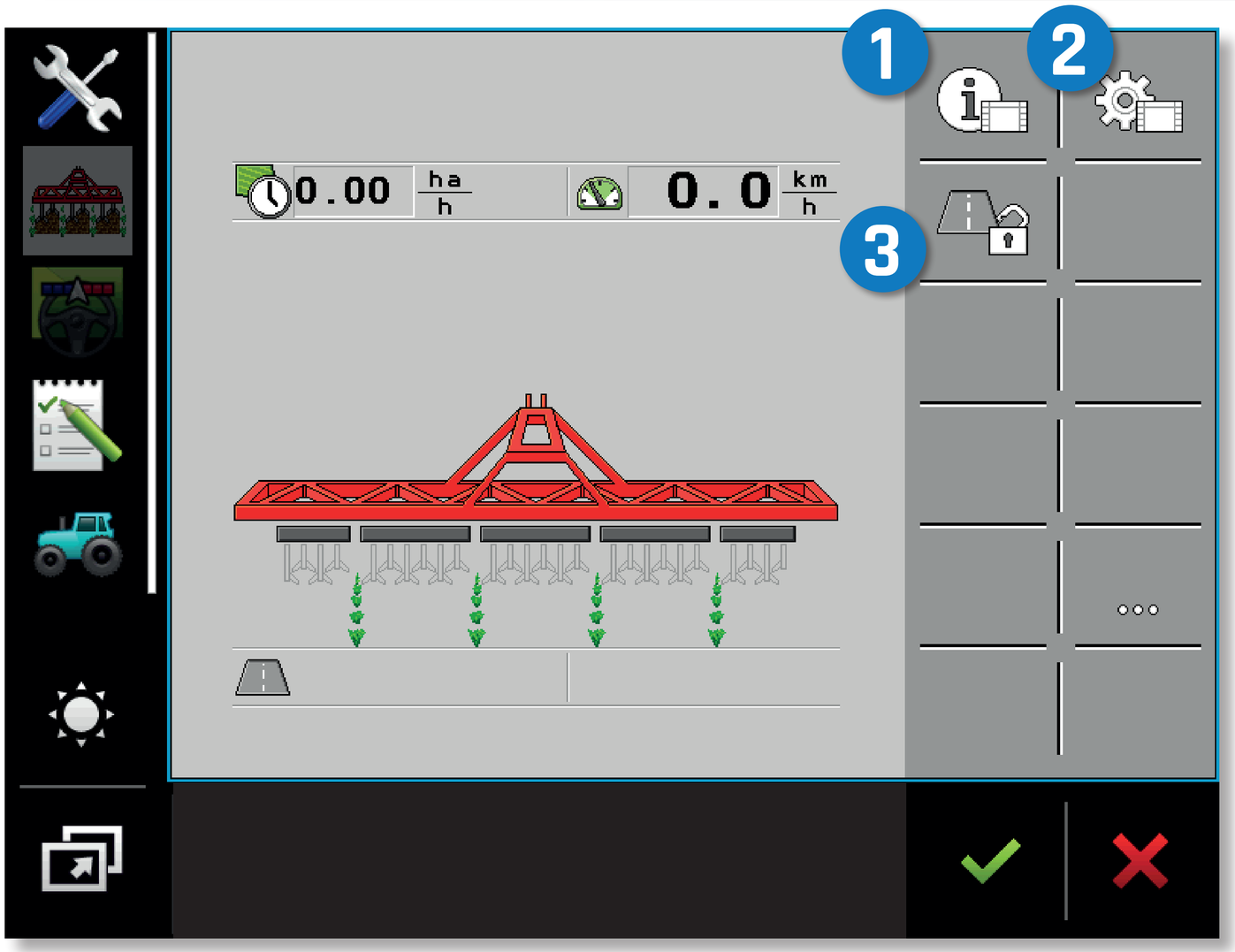
» During the first start, it may take a few minutes to load the data into the monitor.



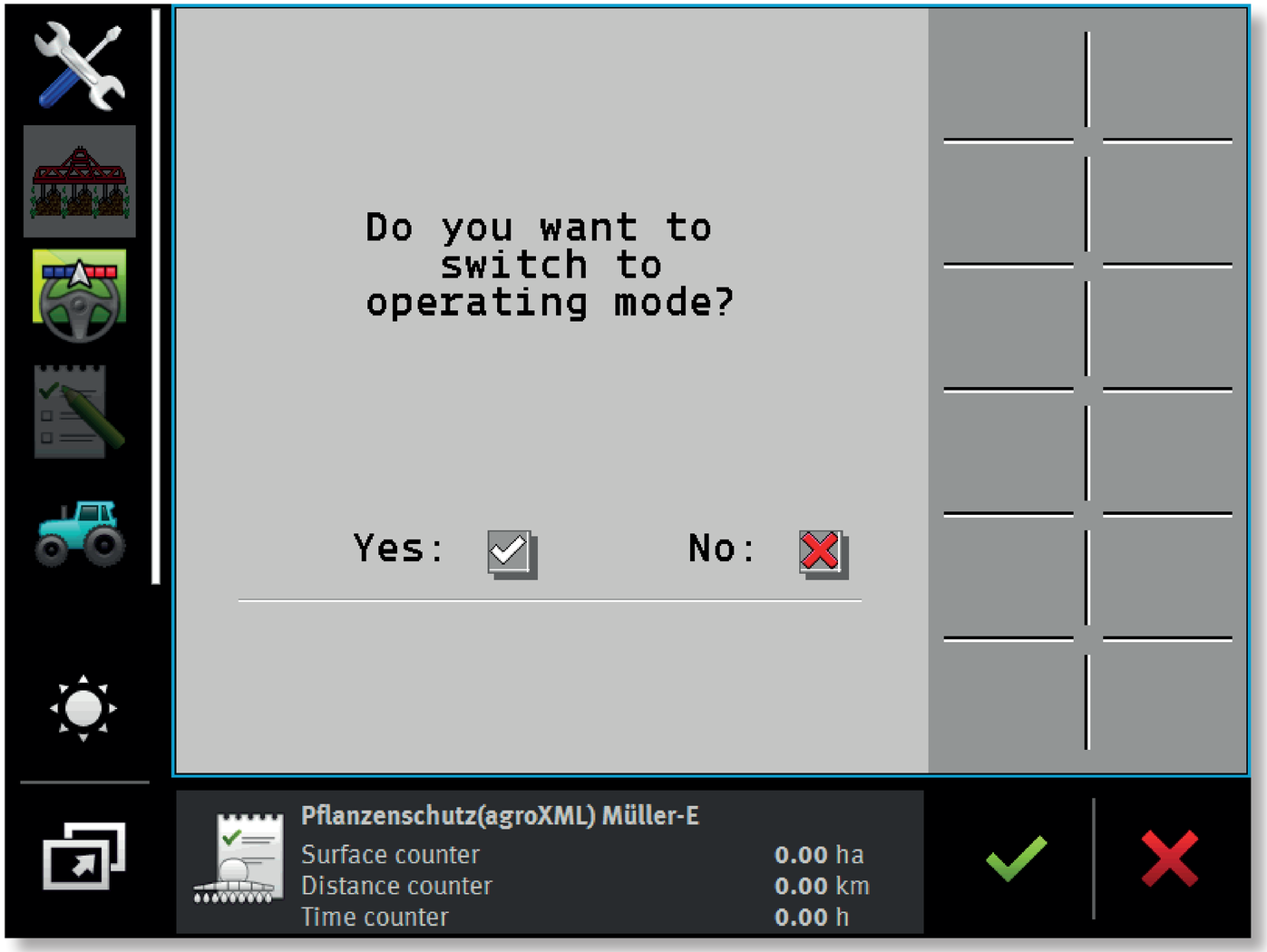
1. Row-crop cultivator interface
2. Monitor setting options



1. Display of the area output per hour
2. Display of the speed
3. Display of the row-crop cultivator
4. Starts and stops hoeing operation.
5. Lowers the sections with hoeing elements from right to left.
6. Lowers the sections with hoeing elements from left to right.
7. Raises the sections with hoeing elements from left to right.
8. Raises the sections with hoeing elements from right to left.
9. Continue/Back



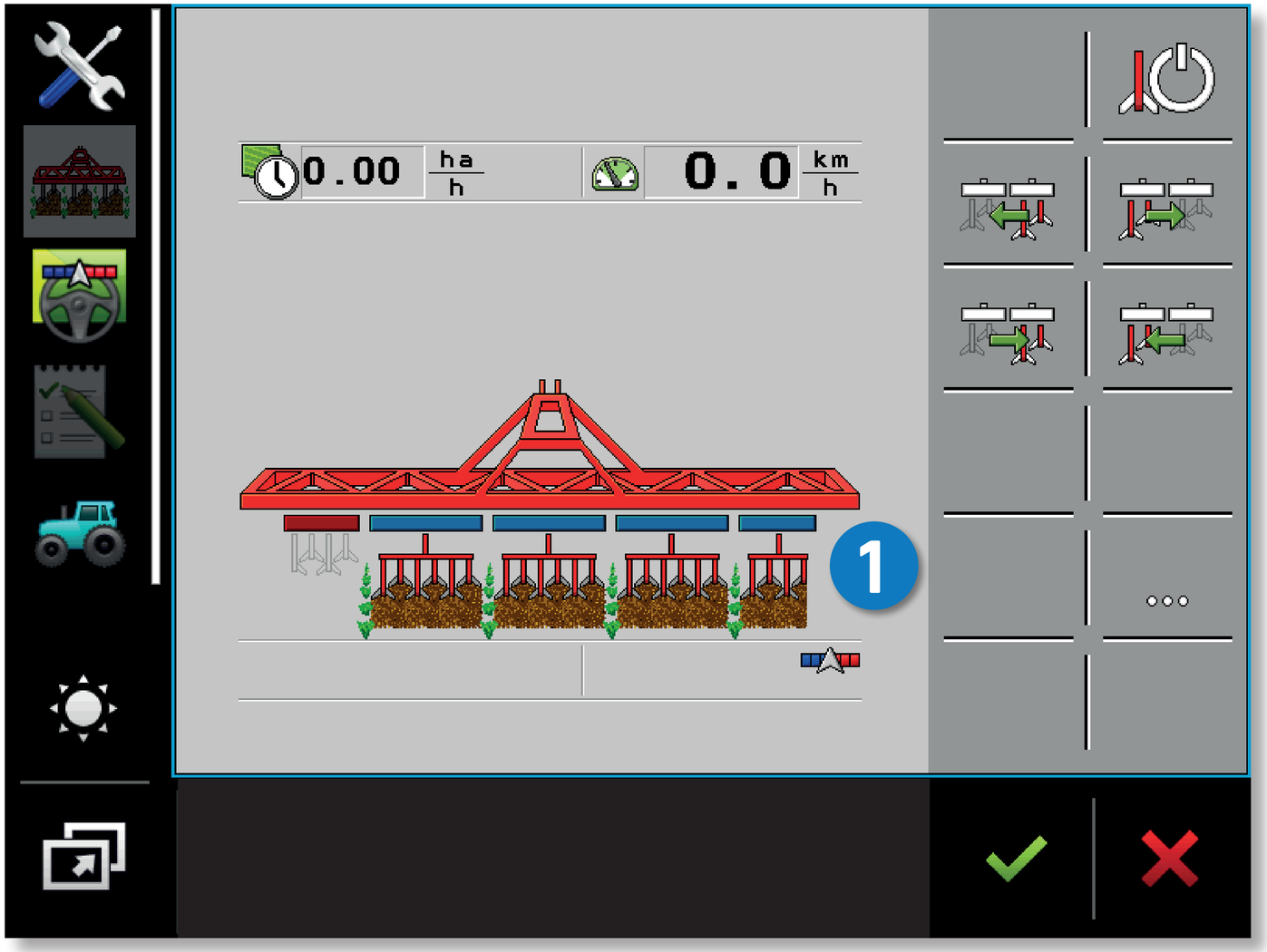
1. Opens the “Results” screen.
2. Opens the “Parameters” screen.
3. Switches between road and working mode.



» After every start of the monitor, the road mode is activated.

» Switch to operation mode to activate the operation.

» **ATTENTION:**
During activating operation mode, all Parallelograms are lifting up automatically. NOBODY is allowed to be at the danger zone!



1. The current state of the hoeing elements can be identified by the color of the sections.

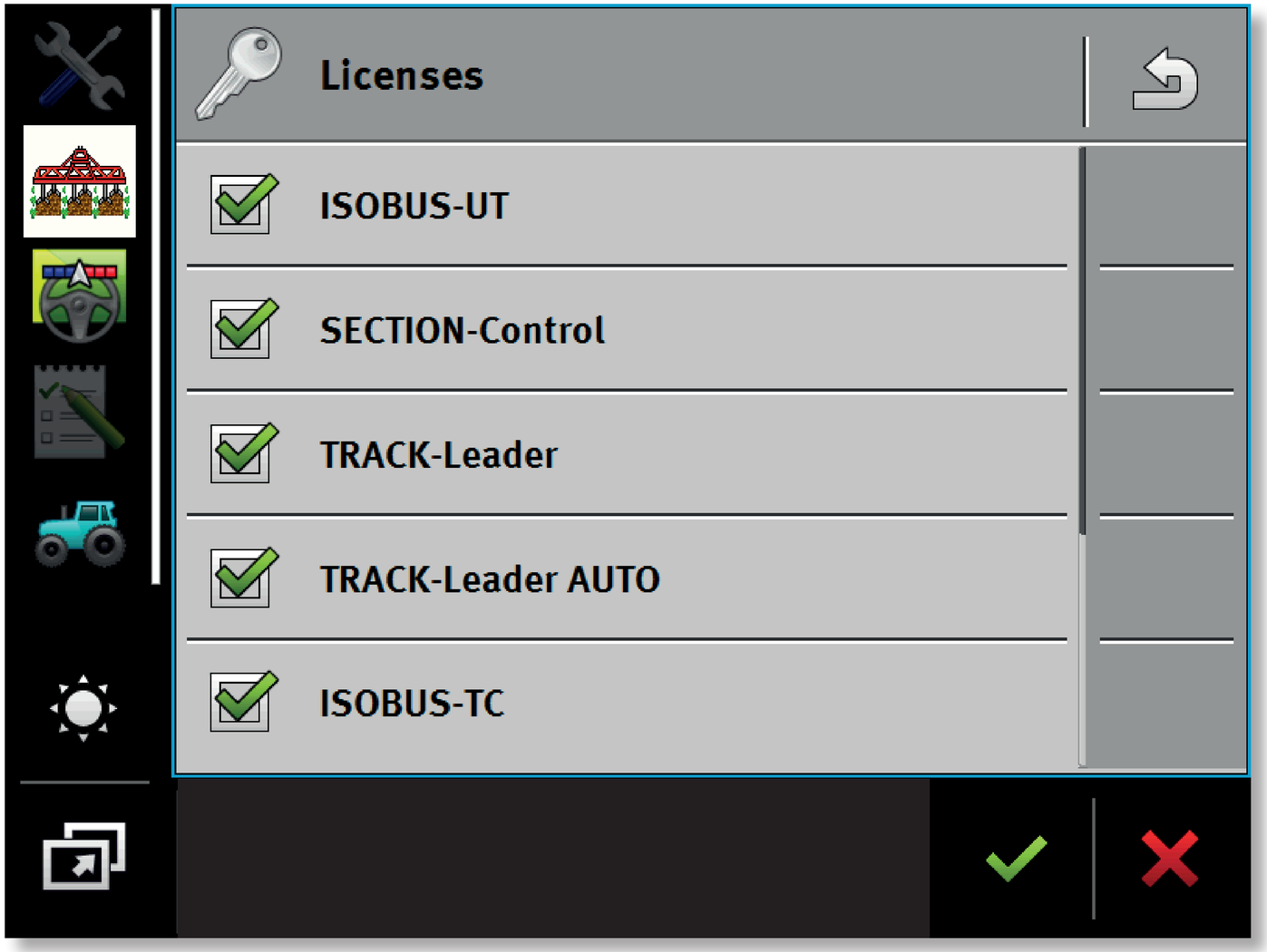
» Light gray = Hoeing element is deactivated and raised by manual switching off of the sections.

» Dark gray = Hoeing element is deactivated and raised by the main switch.

» Blue = Hoeing element is activated and lowered.

» Red = Hoeing element is activated and raised by SECTION CONTROL.

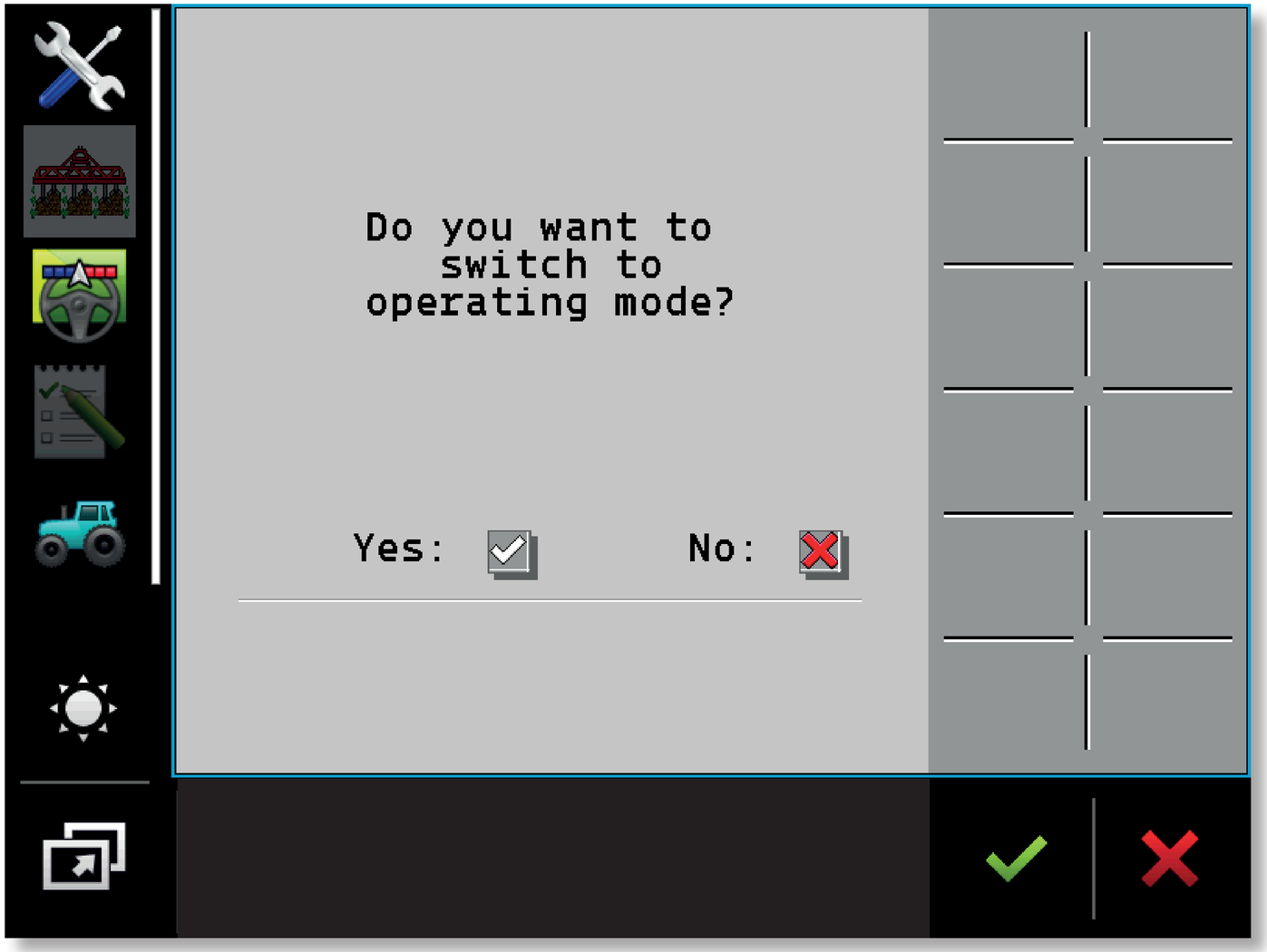
» White = hoeing element is permanently deactivated.



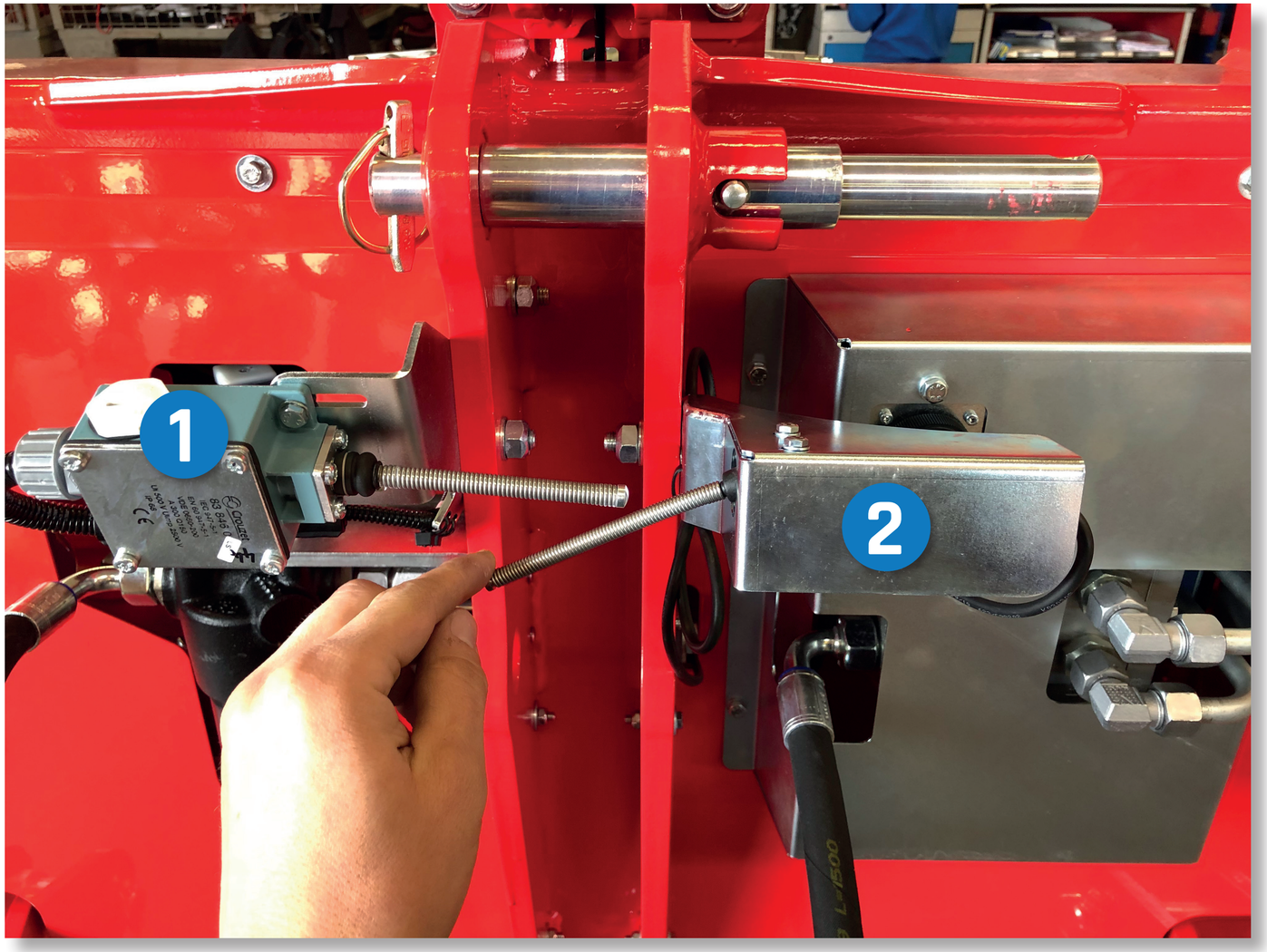
» Requirements:
The ISOBUS functions (including SECTION-CONTROL) must be unlocked and activated on the monitor.

» All settings in the monitor must be configured correctly.

» The row-crop cultivator must be registered as a new device in the monitor.

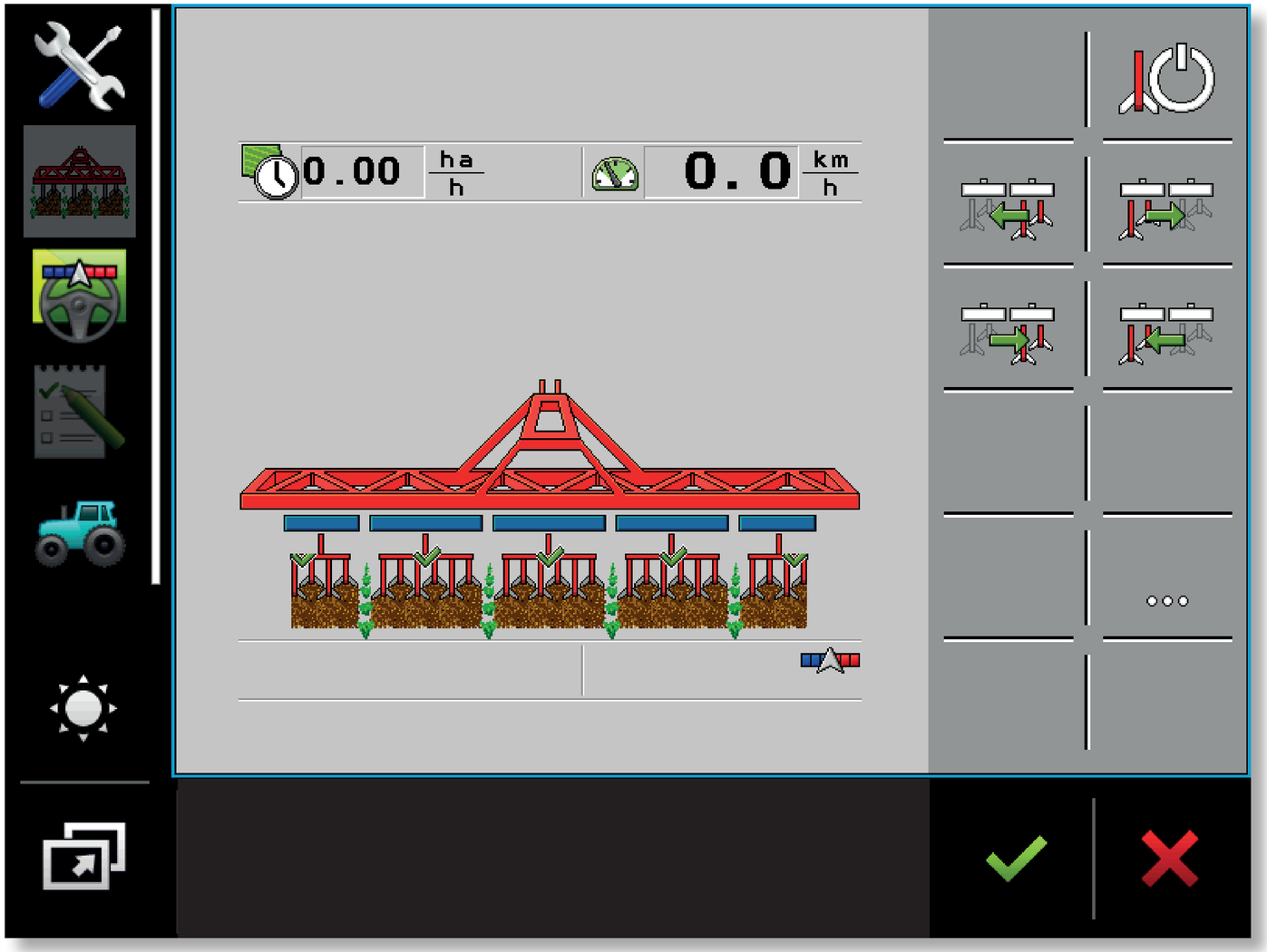


» At first you have to change from the road mode to the operating mode. Only then will the device be operational.



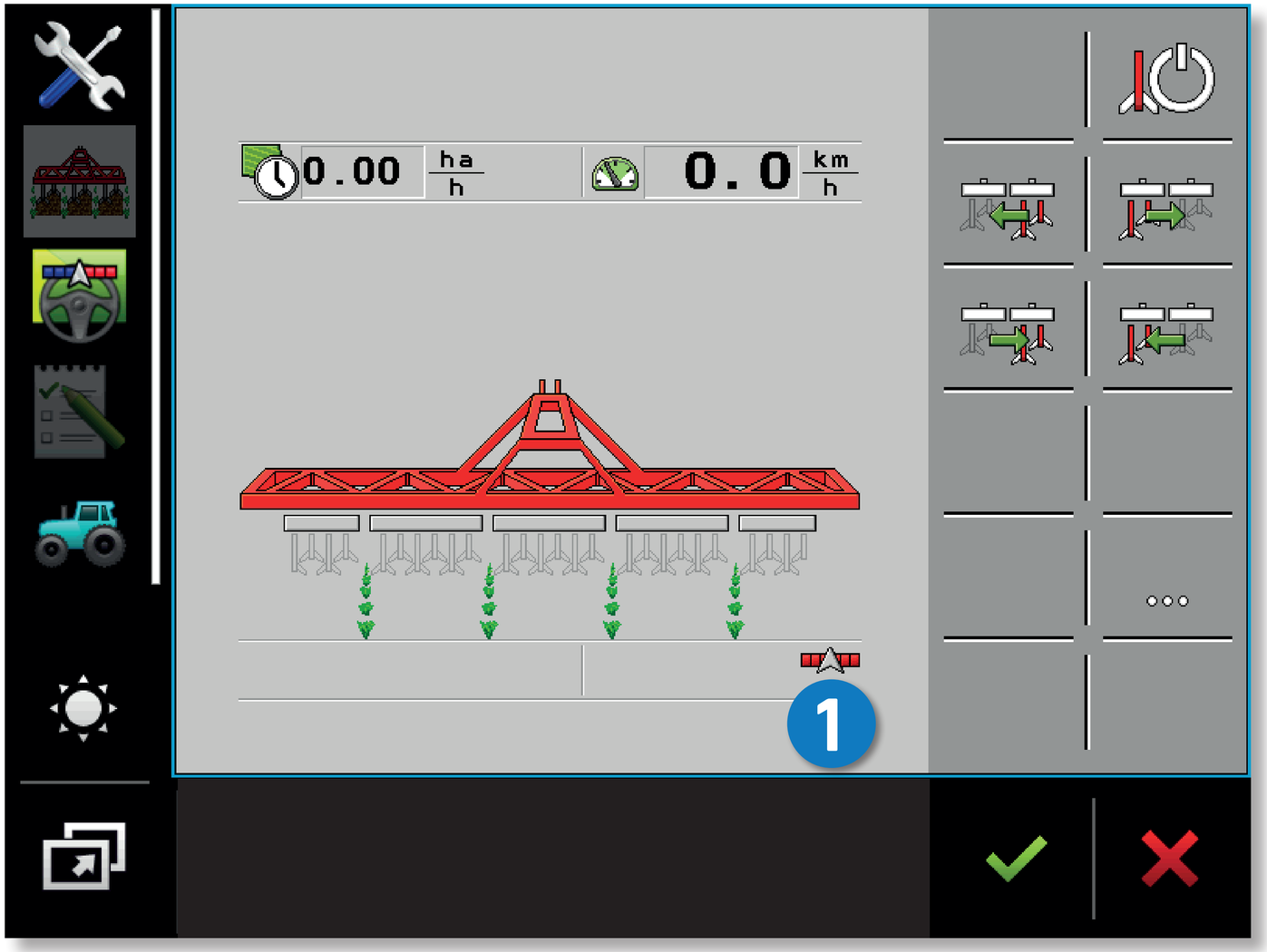
1. Top link sensor ROW-GUARD
2. Top link sensor SECTION-CONTROL

» The top link sensor serves as the main switch. If it is activated, all elements will be raised (e.g., necessary for driving on the headland).



» Hold the start button for 2 seconds to activate the system.

» All elements are lowered to their working position or are activated.

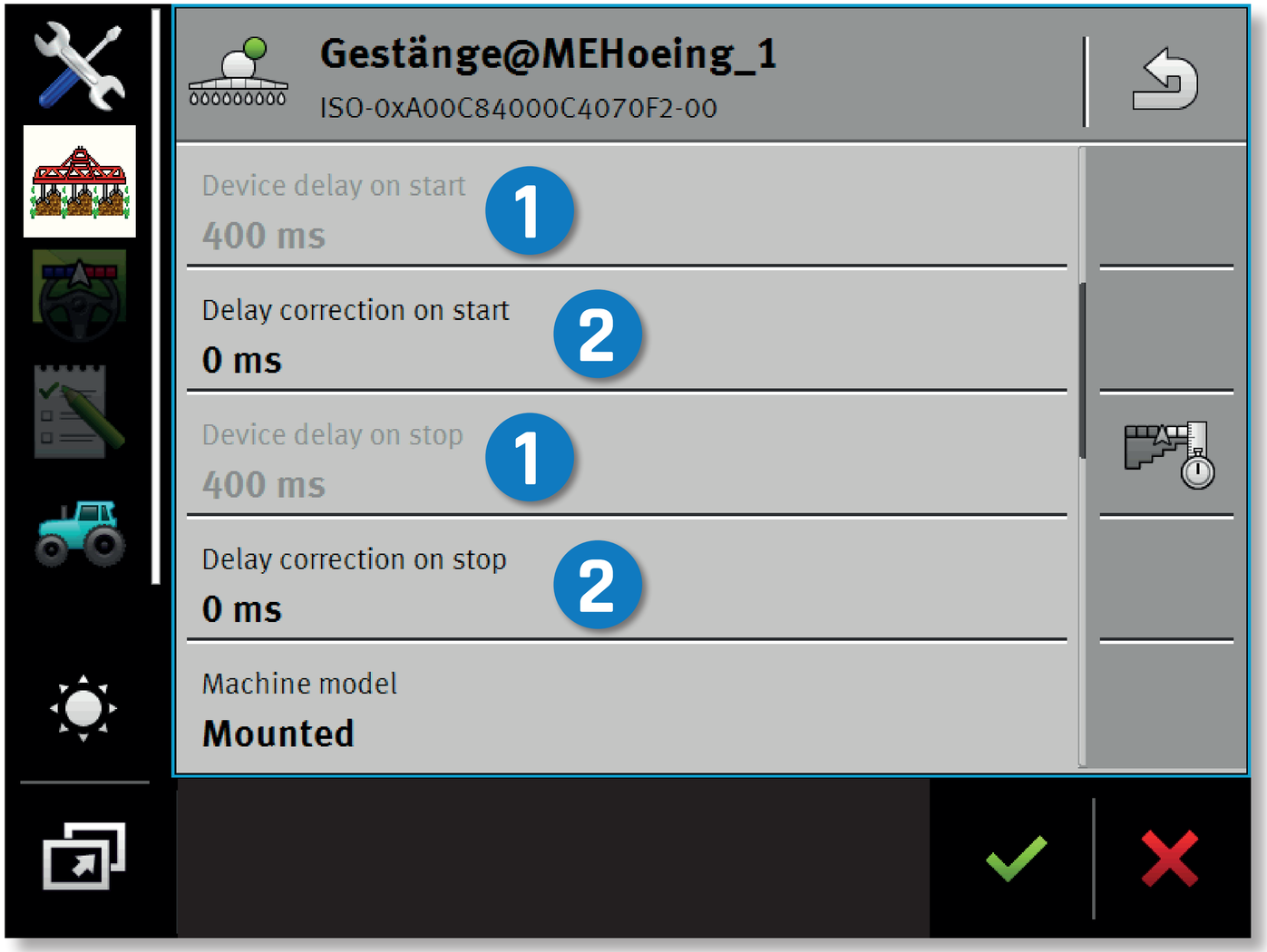


1. If SECTION-CONTROL is activated in the monitor, the display shows the following symbol.

» Symbol red/blue:
Sections are controlled via SECTION-CONTROL.

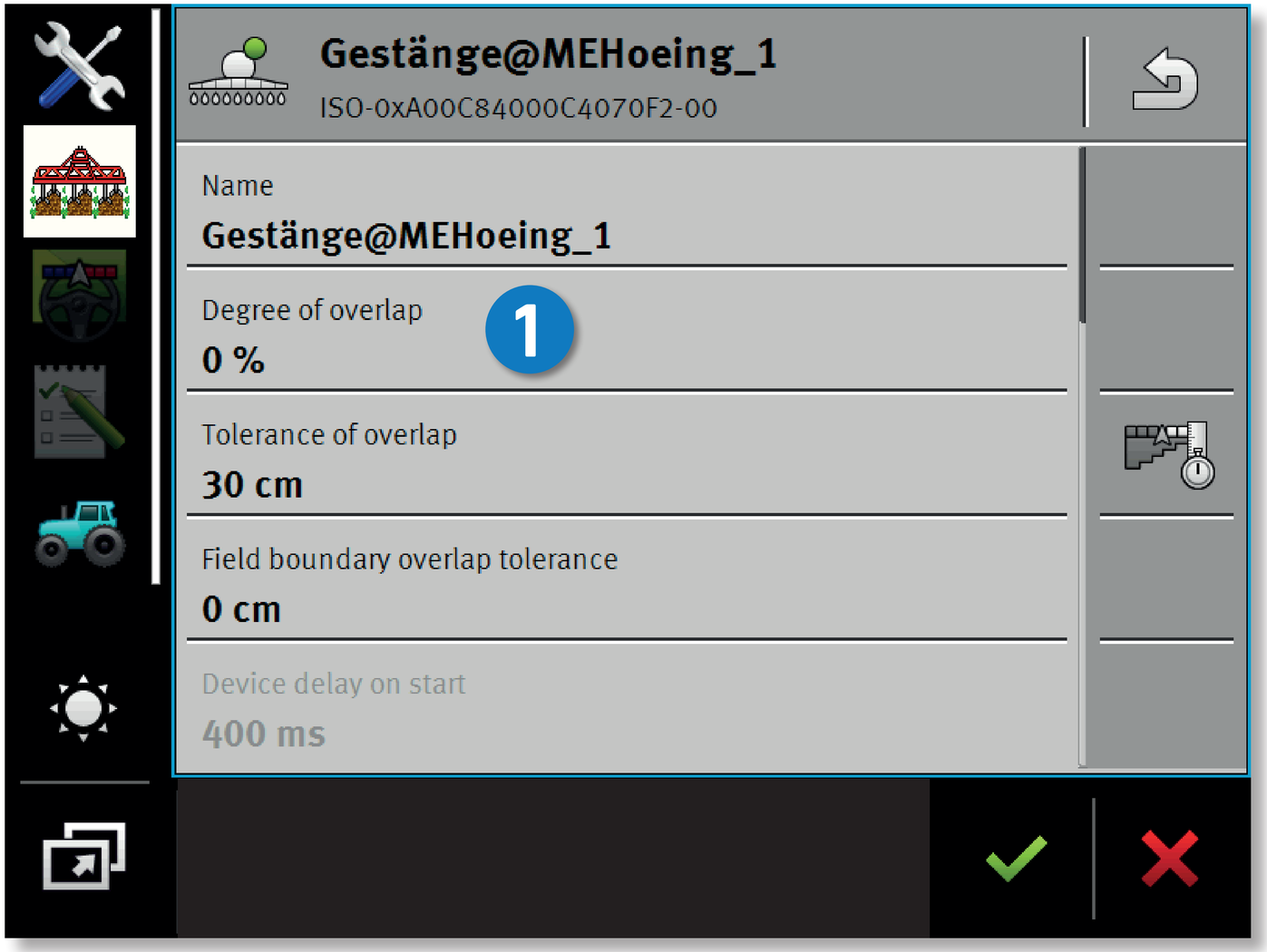
» Symbol red:
The SECTION-CONTROL application has lifted all sections (e.g., hoe outside the field boundary or in the area already cultivated).

» If this symbol is not displayed at all, SECTION-CONTROL is not available and must be activated in the monitor settings.



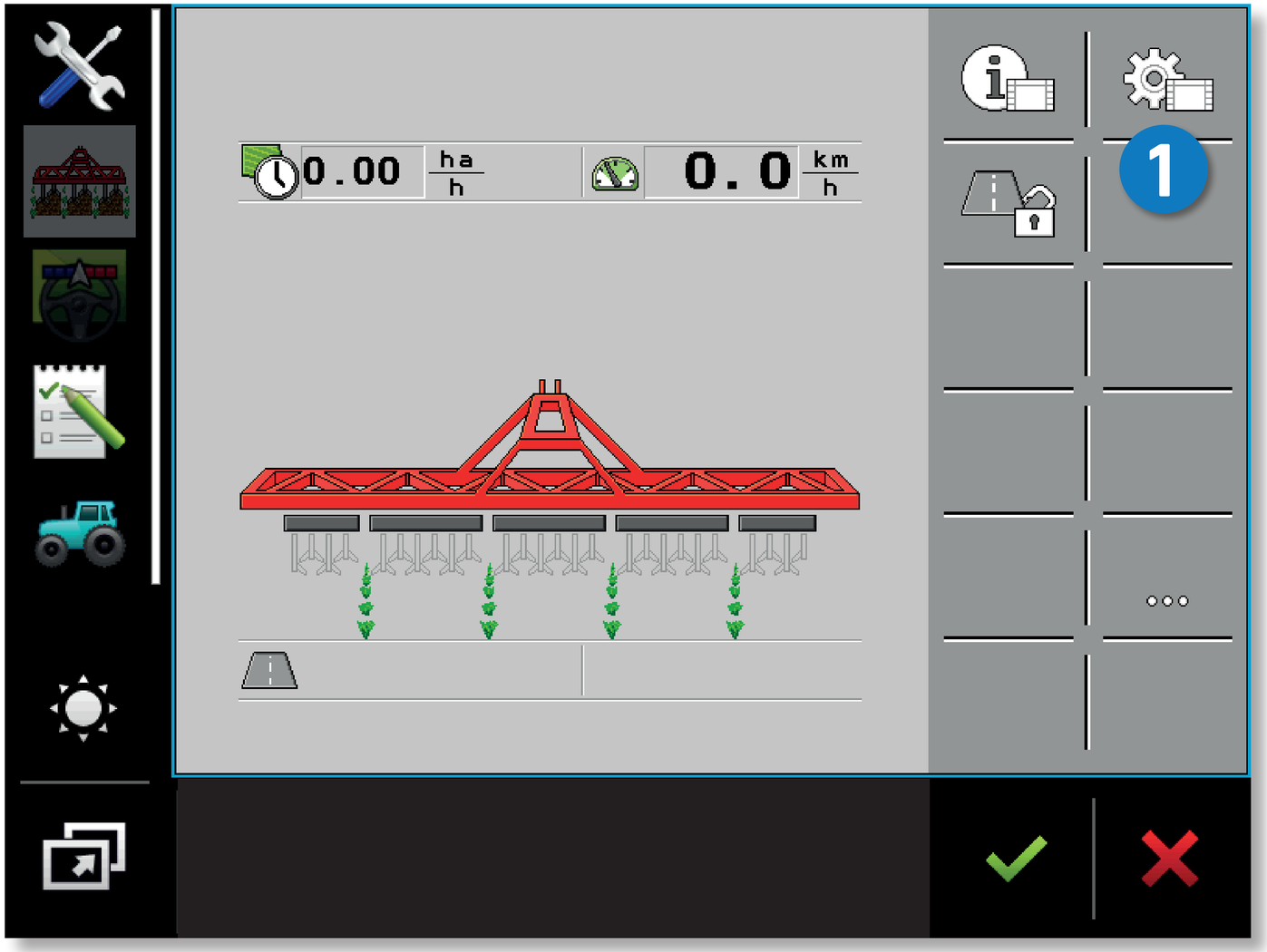
1. The delay correction (ex-factory set) is taken over by the monitor.
2. In most cases it will be necessary to adjust these delay corrections so that the elements are lowered or lifted out earlier or later.

» This input may vary depending on the monitor.



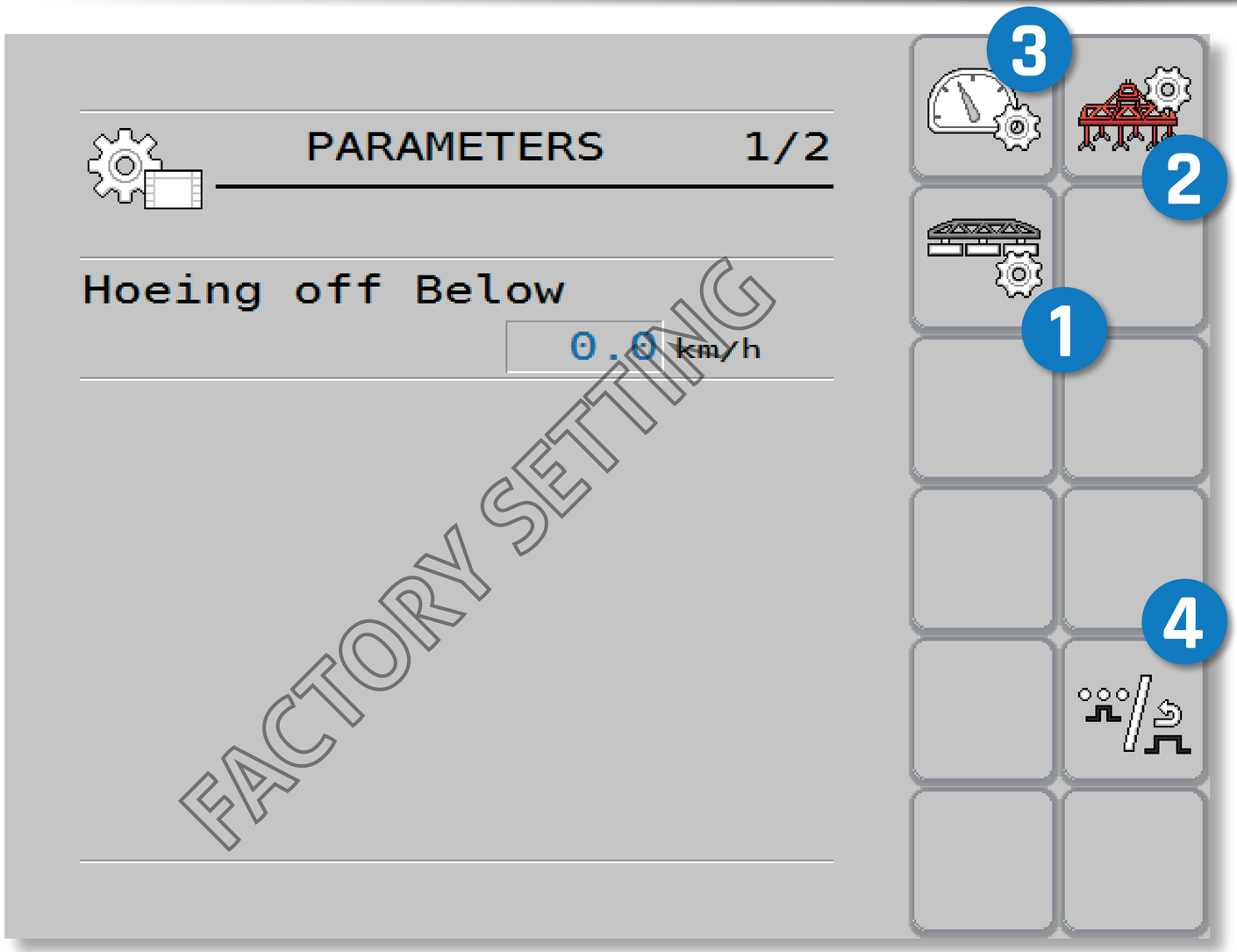
1. The degree of overlap should be set to 0%. This ensures that the elements are lifted at the correct time.

» This input may vary depending on the monitor.



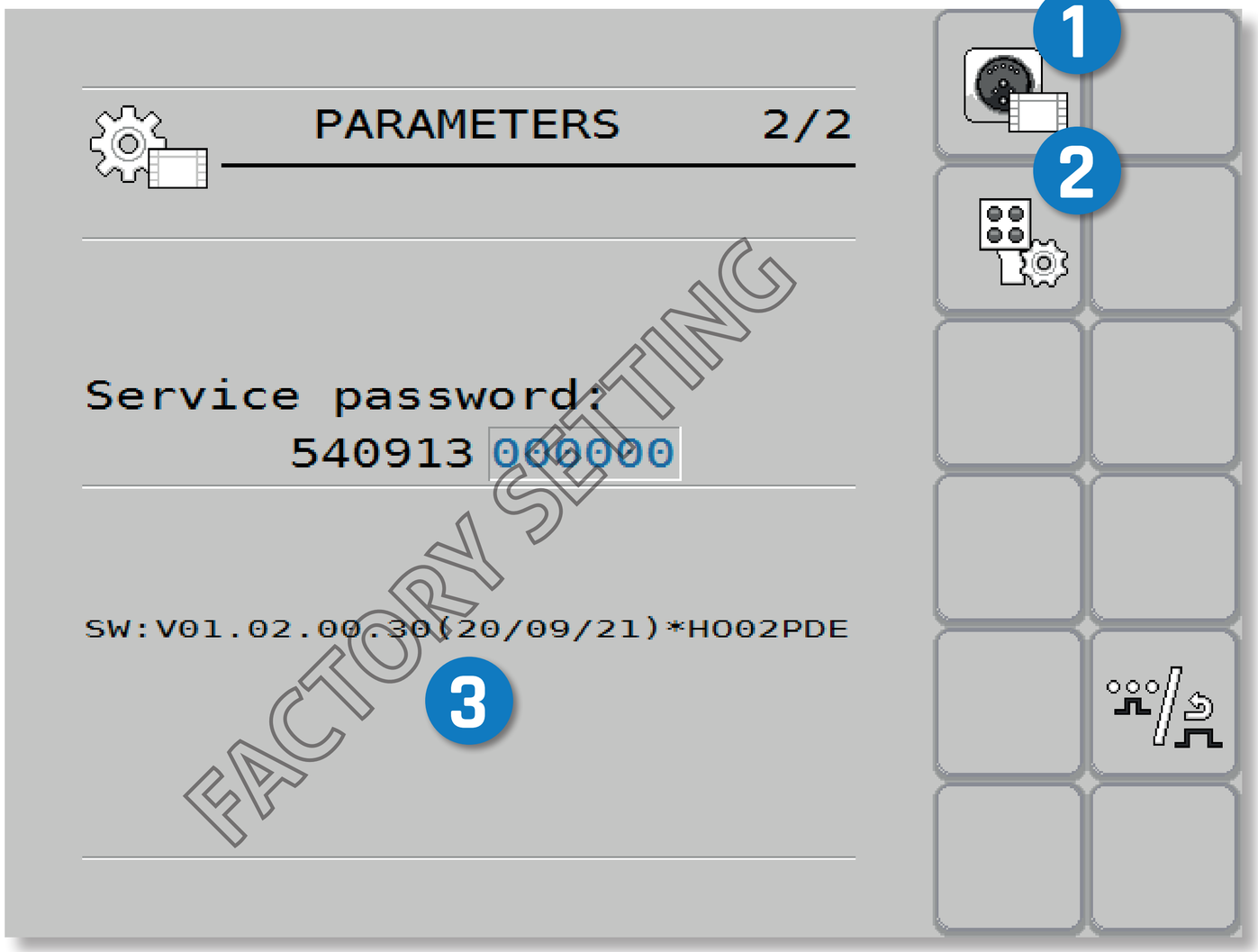
» In the settings (1) you can configure the job computer. This is usually configured at the factory. If changes are necessary, you find the most important points at the following pages.

» For more settings, see also:
Operating instruction ISOBUS-HOEING-CONTROLLER MIDI 3.0

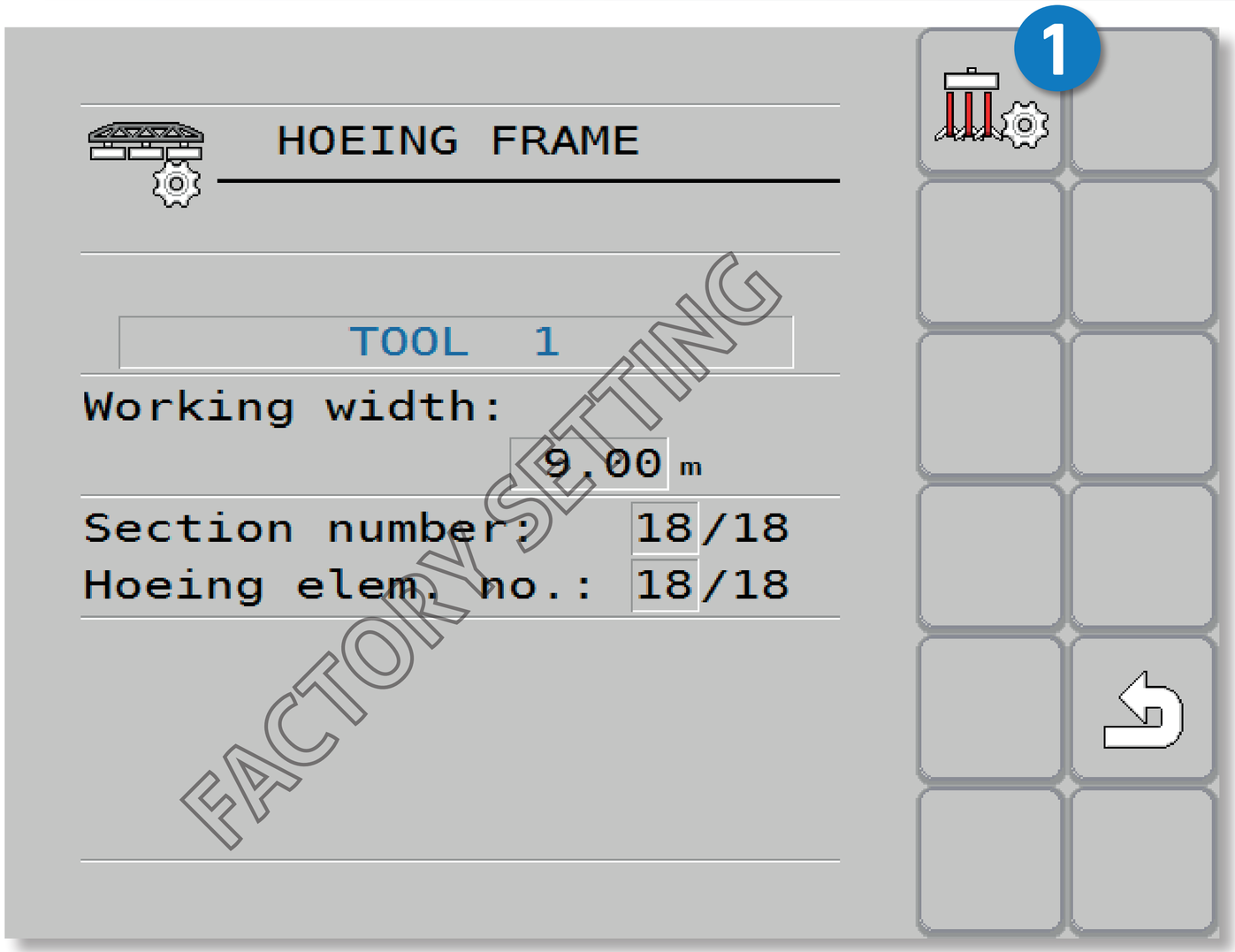


Hoeing off below:
0.0 km/h must be setted

1. menu hoeing frame
   setting of the element sizes
2. menu geometry
   setting of the machine geometry
3. menu speed
4. switch mask or go back



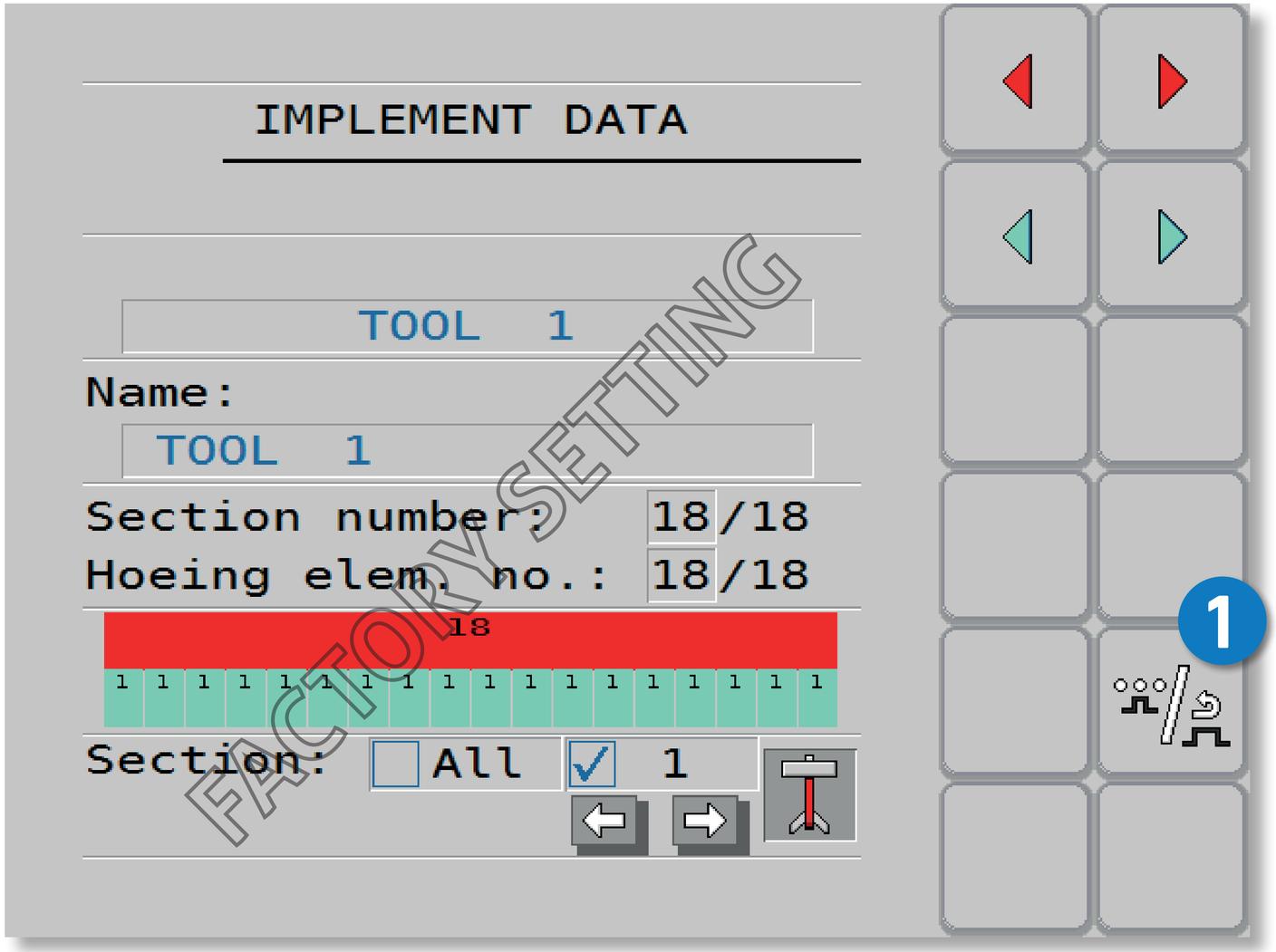
1. menu ISO
2. menu joysticks
3. software-version



Hoeing frame
Tool 1 = standard-Tool, setted in factory.
10 different tools would be able to configure and save.

sections: 18/18
The machine is able to switch 18 sections / 18 sections are activated
hoeing elements: 18/18
The machine is able to switch 18 sections / 18 hoeing elements are activated

1. configure menu hoeing frame - setted in factory

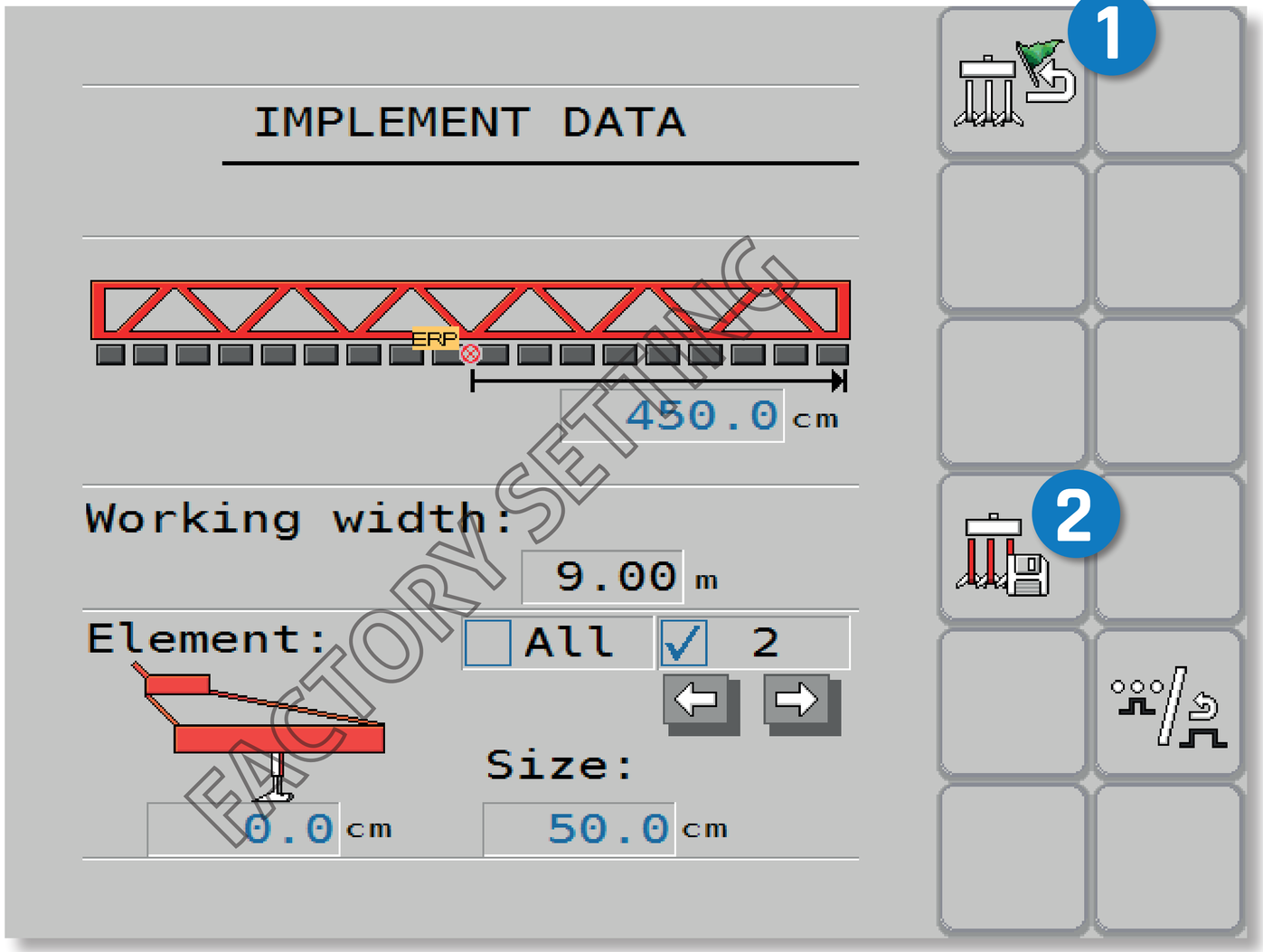


Red arrows:
reduce or add sections
Turquoise arrows:
reduce or add hoeing elements
sections = possible to lift manually in the main menu
hoeing elements = automatically switched via SECTION-CONTROL

» normally amount of sections and hoeing elements are the same

» if the machine is very big, it can be useful to have less sections with more hoeing elements.

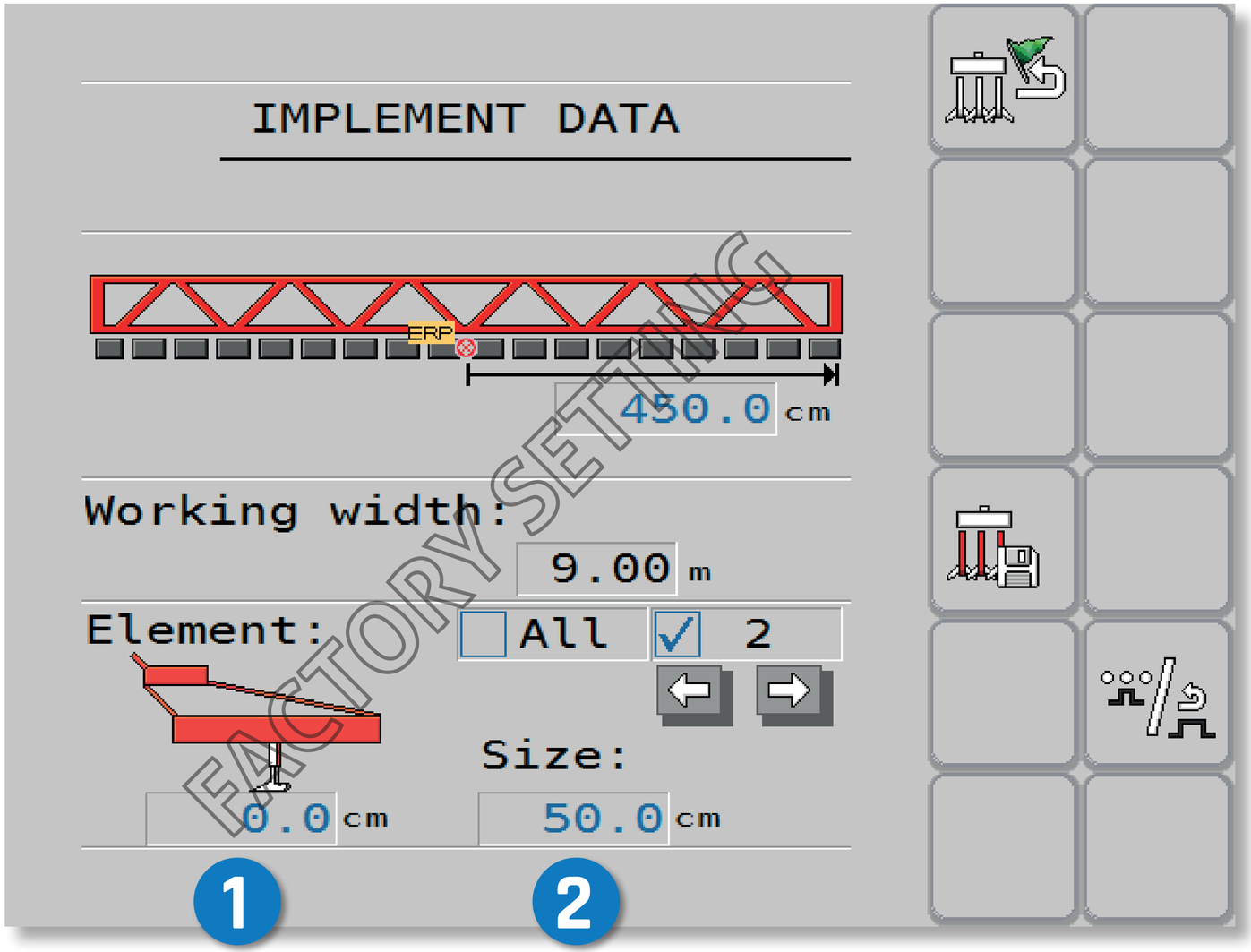
1. switch to 2nd page implement data



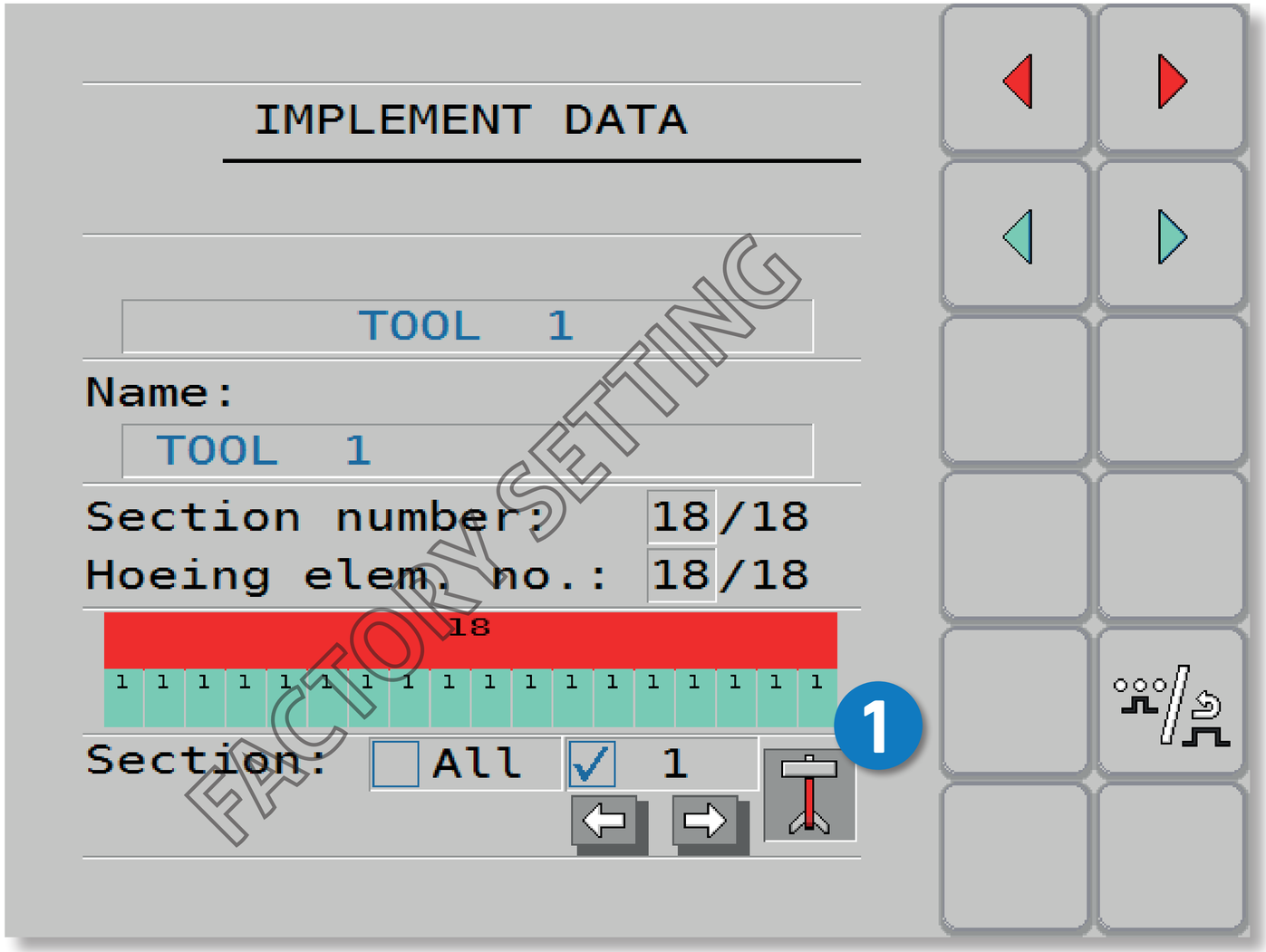
half working width:
if it is an asymetric machine, the lenght of the right half of the machine must be entered.

working width:
9m - automatically calculated of the amount and the size of the hoeing elements

1. **reset settings**
   The machine is resetted to basic setting.
   (NOT recommended)
2. **save settings**
   after adjusting, the settings has to be saved.

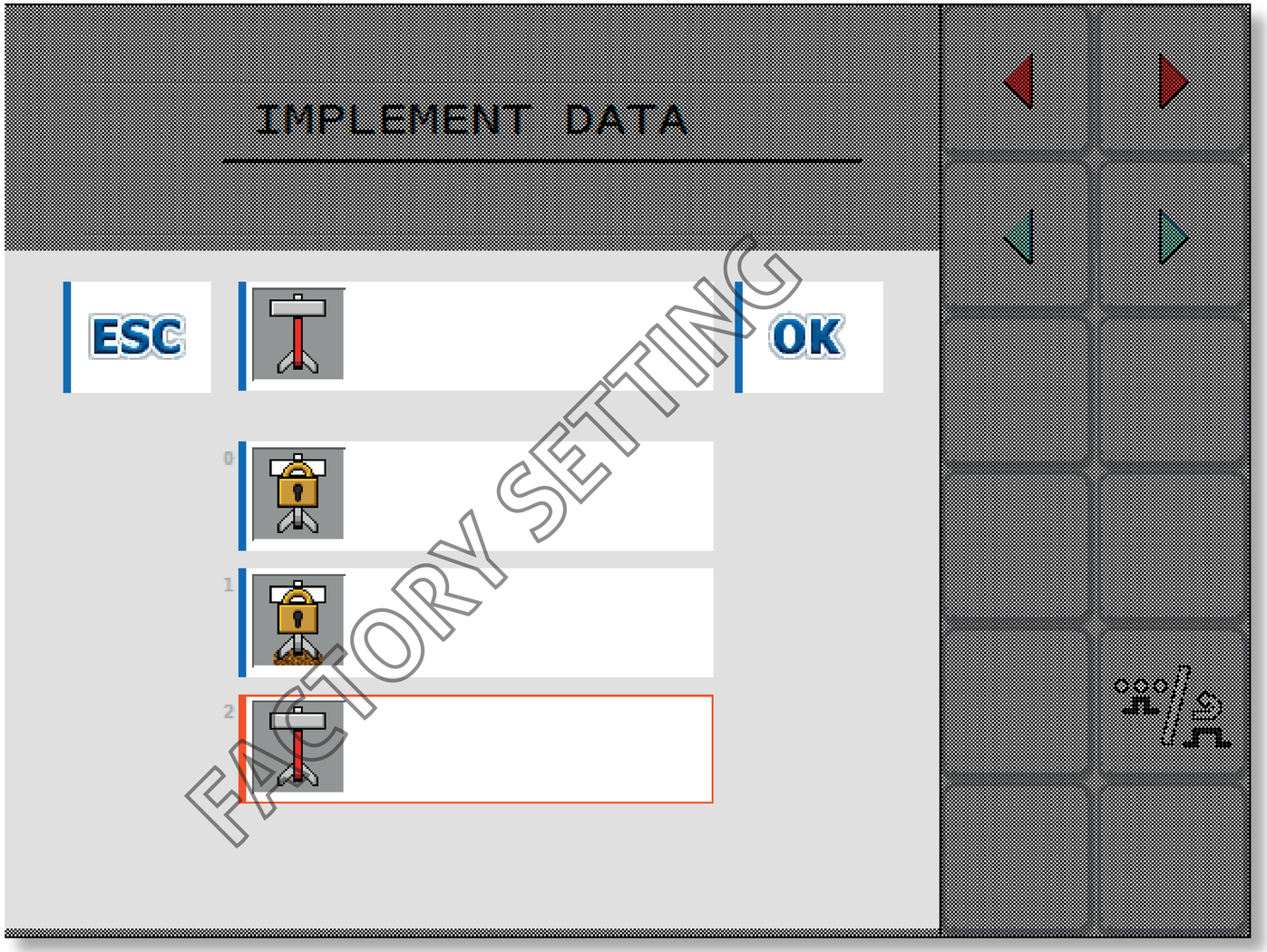


1. **offset element:**
   every hoeing element can be adjusted in it's position further back or in front. (standard: 0)
2. **element size:**
   every element can be setted individually.
   f.e. machine with 50cm Row-distance.
   Element 1 = 25cm (half element)
   Element 2 = 50cm (whole element), ...
   The sum of the elements is the working width



1. Activate/deactivate single hoeing elments (f.e. necessary if changing the row amount of the machine)

   Through press the button - entering page opens



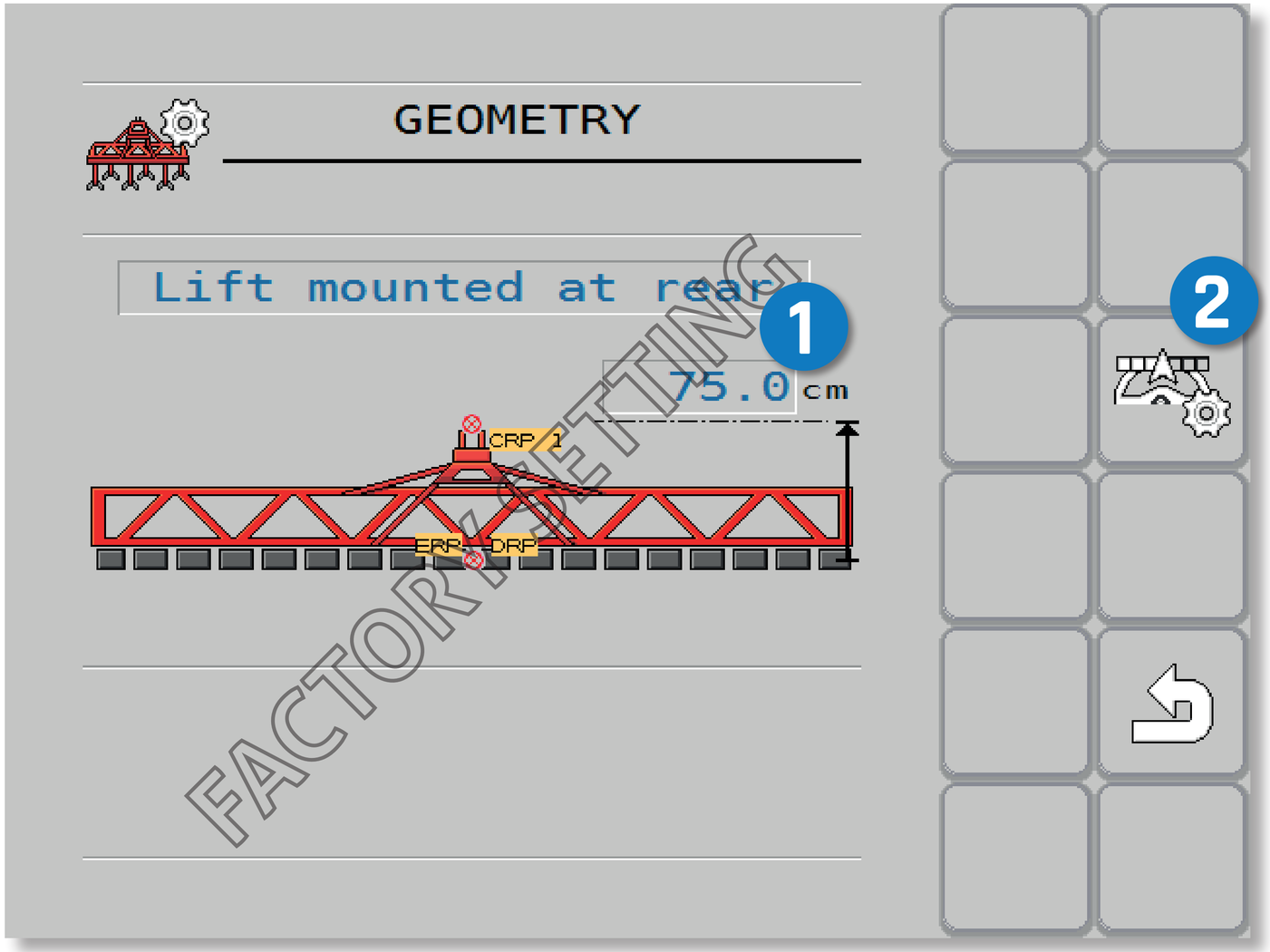
3 different functions are possible;

» element locked in position up

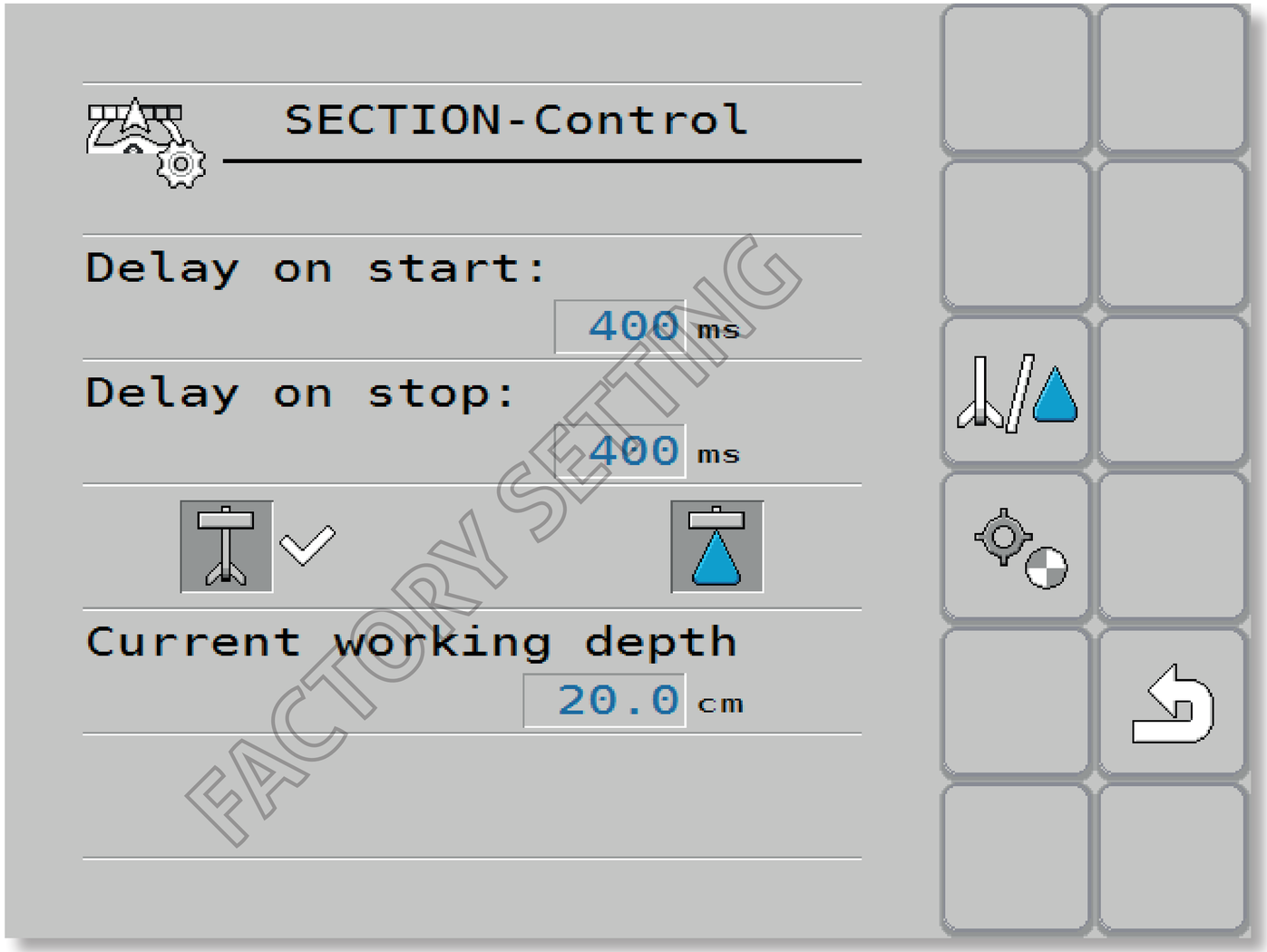
» element locked in position down

» element activated (standard)

After changing the setting, it must be saved with the „Save-Button".



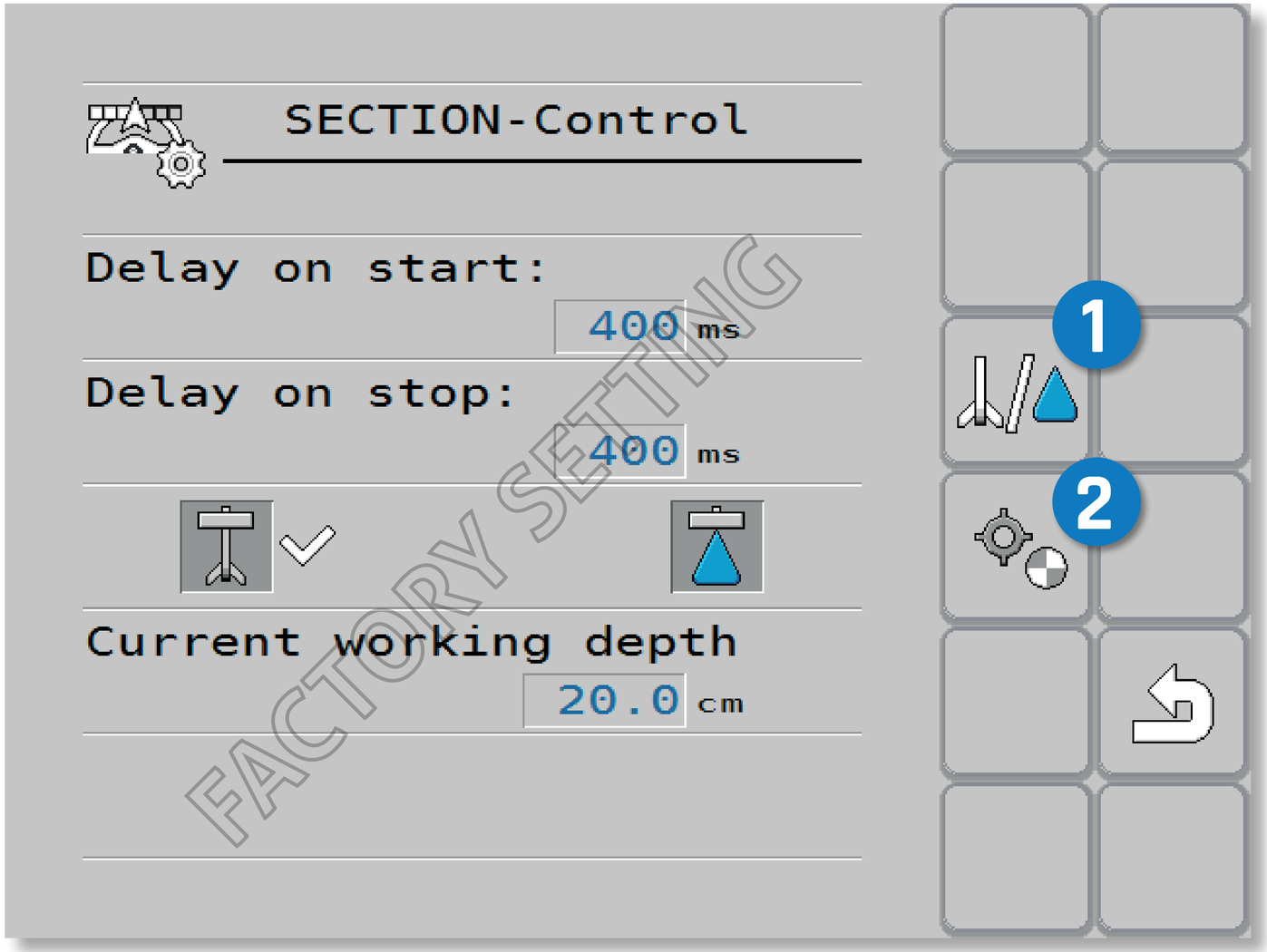
1. offset to the back
   offset between lower linkage and first hoeing sweep
2. menu section-control



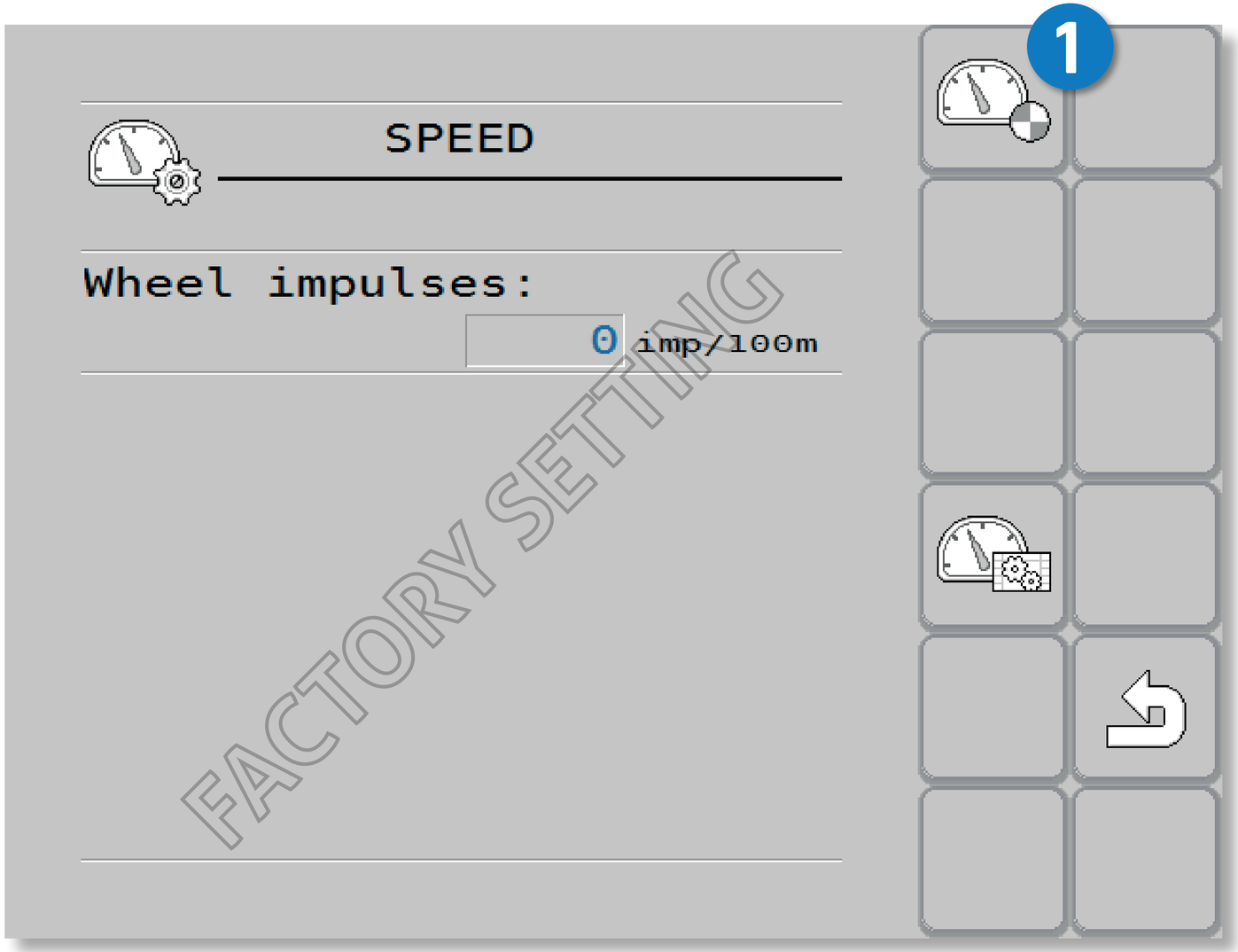
Delay on start:
is the delay of the elements, when they are lowering. - setting: when the elements lower too early, reduce the value.

Delay on stop:
is the delay of the elements, when they lift up. - setting: when the elements lift up too early, reduce the value.

ATTENTION:
When fine-tuning the setting, the driving speed during leaving and entering the headland has to be always the same.



1. **hoeing machine / spraying machine**
   some older types of Monitors can not steer a soil cultivator. In this case change to spraying machine.
2. **show „current working width“**
   Press the button to show or hide the value. Some monitors need this value in the Task-Controller (standard: value is shown)



impulses wheel sensor: 0 impulses (=standard setting) - the speed will be taken by ISOBUS.

1. simulated speed - press the button to activate the simulated speed (NOT necessary - standard: value not shown)