Original operating manual

ISOBUS software

Hoeing machine

This operating manual is valid as of software version NW324-G



SmartLearning

MG7896-EN-GB

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About this operating manual

1

CMS-T-00000539-K.1

1.1 Copyright

CMS-T-00012308-A.1

Reprinting, translation and reproduction in any form, including excerpts, require the written approval of AMAZONEN-WERKE.

1.2 Meaning of the operating manual

CMS-T-006245-A.1

The operating manual is an important document and a part of the implement. It is intended for the user and contains safety-related information. Only the instructions provided in the operating manual are reliable. If the operating manual is not observed, it can result in serious injury or death.

1. The safety section must be completely read and observed before initial operation of the implement.

2. Before starting work, also read and observe each section of the operating manual.

3. Keep the operating manual available.

4. Hand over the operating manual to the subsequent user.

1.3 Diagrams

CMS-T-005676-G.1

1.3.1 Warnings and signal words

CMS-T-00002415-A.1

Warnings are marked with a vertical bar with a triangular safety symbol and the signal word. The signal words "DANGER", "WARNING" or "CAUTION" describe the severity of the potential danger and have the following meanings:

DANGER

- Indicates a direct threat with high risk for severe physical injury, such as loss of limbs or death.

WARNING

- Indicates a possible threat with moderate risk for severe physical injury or death.

CAUTION

- Indicates a threat with low risk for light or moderately severe physical injuries.

1.3.2 Further instructions

CMS-T-00002416-A.1

IMPORTANT

- Indicates a risk for damage to the implement.

ENVIRONMENTAL INFORMATION

- Indicates a risk for environmental damage.

NOTE

Indicates application tips and instructions for optimal use.

1.3.3 Instructions

CMS-T-00000473-E.1

1.3.3.1 Numbered instructions

CMS-T-005217-B.1

Actions that have to be performed in a specific sequence are represented as numbered instructions. The specified sequence of the actions must be observed.

Example:

1. Instruction 1
2. Instruction 2

1.3.3.2 Instructions and responses

CMS-T-005678-B.1

Reactions to instructions are marked with an arrow.

Example:

1. Instruction 1

➡ Reaction to instruction 1

2. Instruction 2

1.3.3.3 Alternative instructions

CMS-T-00000110-B.1

Alternative instructions are introduced with the word "or".

Example:

1. Instruction 1

   or

   Alternative instruction

2. Instruction 2

1.3.3.4 Instructions with only one action

CMS-T-005211-C.1

Instructions with only one action are not numbered, but rather shown with a arrow.

Example:

▶ Instruction

1.3.3.5 Instructions without sequence

CMS-T-005214-C.1

Instructions that do not require a specific sequence are shown as a list with arrows.

Example:

▶ Instruction

- Instruction

- Instruction

1.3.3.6 Workshop work

CMS-T-00013932-B.1



WORKSHOP WORK

- Identifies maintenance work that must be performed at a workshop that is adequately equipped in terms of agricultural technology, safety and environmental technology by specialist personnel with appropriate training.

1.3.4 Lists

CMS-T-000024-A.1

Lists without an essential order are shown as a list with bullets.

Example:

- Point 1
- Point 2

1.3.5 Item numbers in figures

CMS-T-000023-B.1

A framed number in the text, e.g. a **1**, indicates an item number in an adjacent figure.

1.3.6 Direction information

CMS-T-00012309-A.1

Unless otherwise specified, all directions are always seen in the direction of travel.

1.4 Other applicable documents

CMS-T-00000616-B.1

A list of other applicable documents can be found in the Appendix.

1.5 Digital operating manual

CMS-T-00018782-A.1

The digital operating manual and e-learning can be downloaded from the Download Center on the AMAZONE website.

1.6 Your opinion is important

CMS-T-000059-D.1

Dear reader, our documents are updated on a regular basis. Your suggestions for improvement help us to create ever more user-friendly documents. Please send us your suggestions by post, fax or email.

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CMS-I-00000638

Overview of the functions

2

CMS-T-00006184-D.1

AMAZONE hoeing machines are operated with the ISOBUS software. The ISOBUS software can be displayed and operated with an ISOBUS control terminal.

The ISOBUS software includes the following functions:

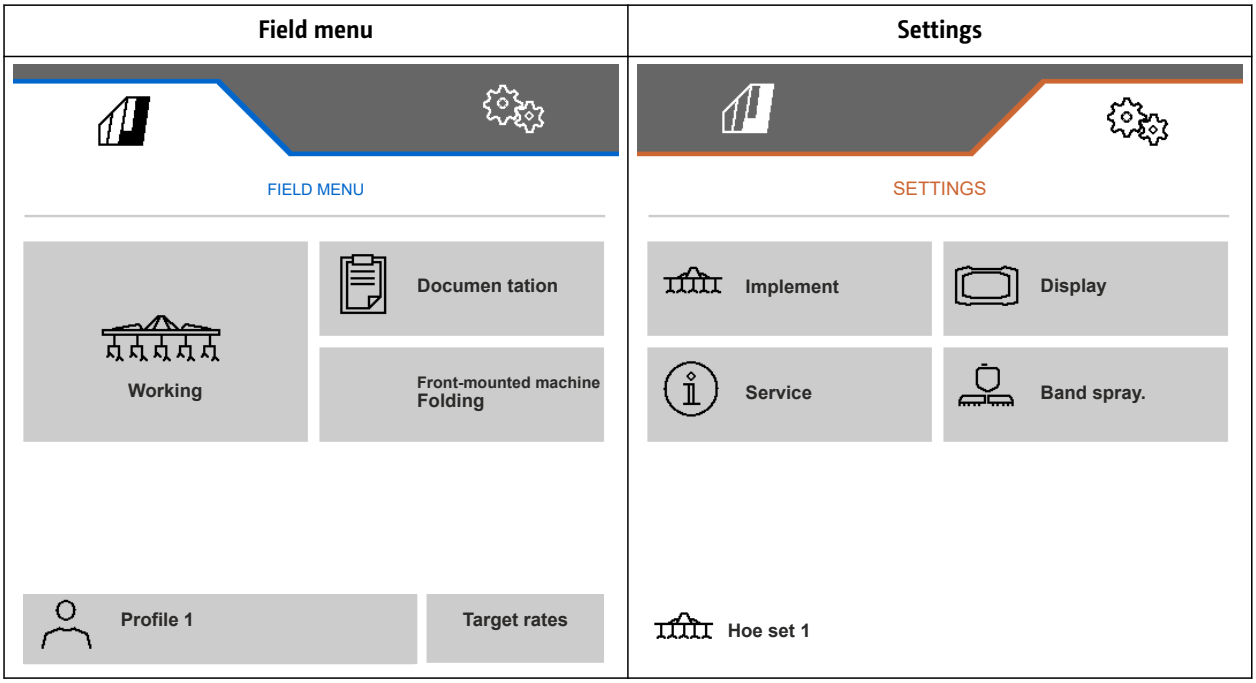
- Monitoring the implement data
- Activating and deactivating parallelograms
- Switching hoe part-width sections manually and automatically
- Activating and deactivating sprayer part-width sections
- Switching sprayer part-width sections manually and automatically
- Starting and stopping spraying operation
- Regulating the application rate
- Enter settings
- Managing implement profiles
- Managing the user profiles
- Managing the documentation
- Calling up information

Main menu overview

3

CMS-T-00006185-C.1

The Main menu is divided into the Field menu and the Settings menu.



Work menu 4

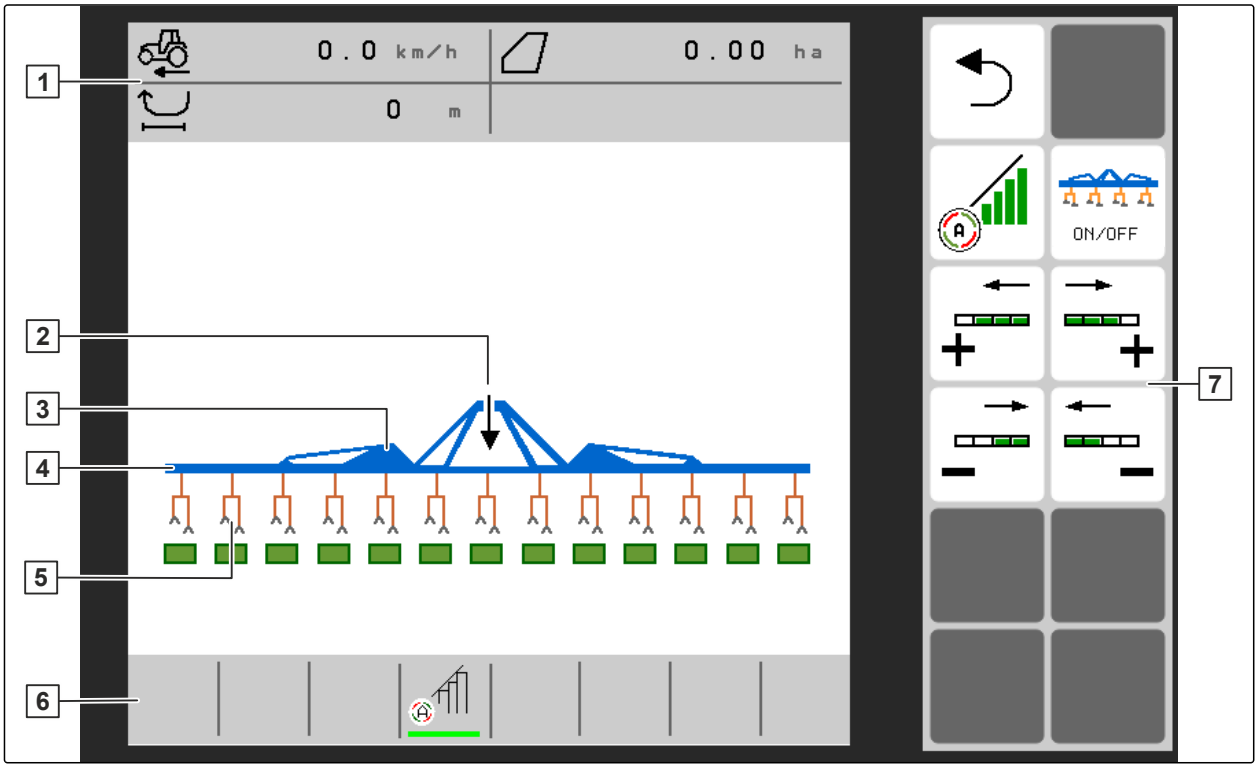
CMS-T-00006186-D.1

4.1 Overview of the Work menu

CMS-T-00015556-A.1

4.1.1 Work menu for implements without band sprayer and front tank

CMS-T-00006187-C.1



CMS-I-00004420

1 Multi-function display

2 Display for the status of the working position

3 Display for the status of the folding

4 Display for the status of the implement

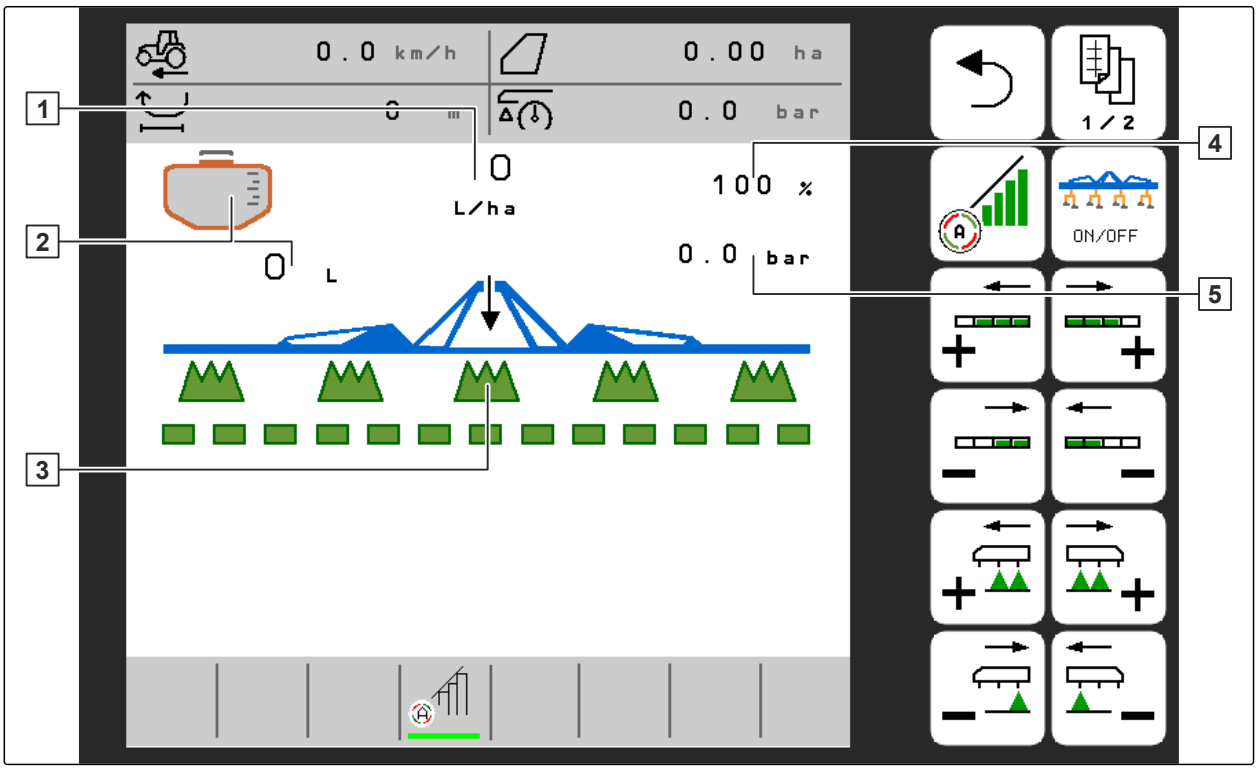
5 Display for the status and the position of the parallelograms

6 Status bar

7 Button bar

4.1.2 Work menu for implements with band sprayer and front tank

CMS-T-00015557-A.1



CMS-I-00010211

1 Display for the target application rate in l/ha

2 Display for the fill level

3 Display for the status of the sprayer part-width sections

4 Display for the target application rate in percent

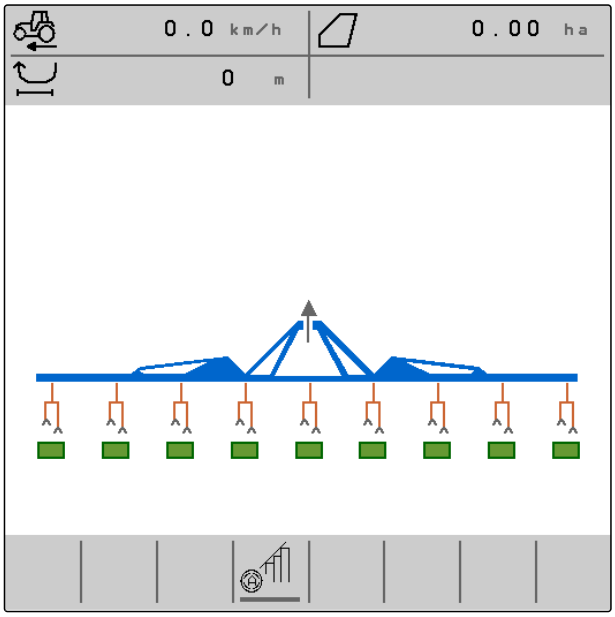
5 Display for the spray pressure in bar

4.2 Display for the status of the working position

CMS-T-00008750-A.1

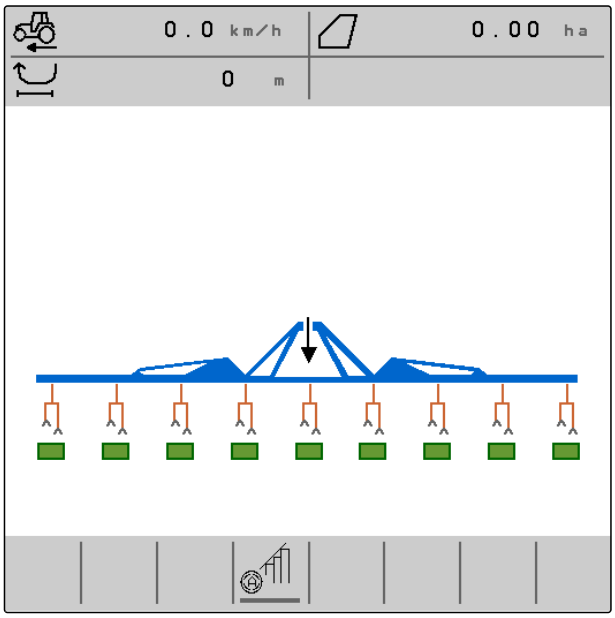
In the Work menu, an arrow shows whether the implement is lifted or lowered.

If the black arrow points up, the implement is lifted.



CMS-I-00005986

If the black arrow points down, the implement is lowered.



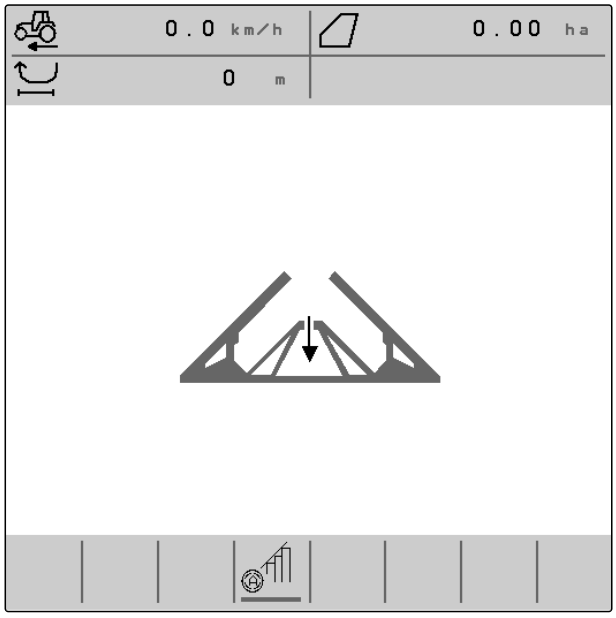
CMS-I-00006141

4.3 Display for the status of the folding

CMS-T-00006221-A.1

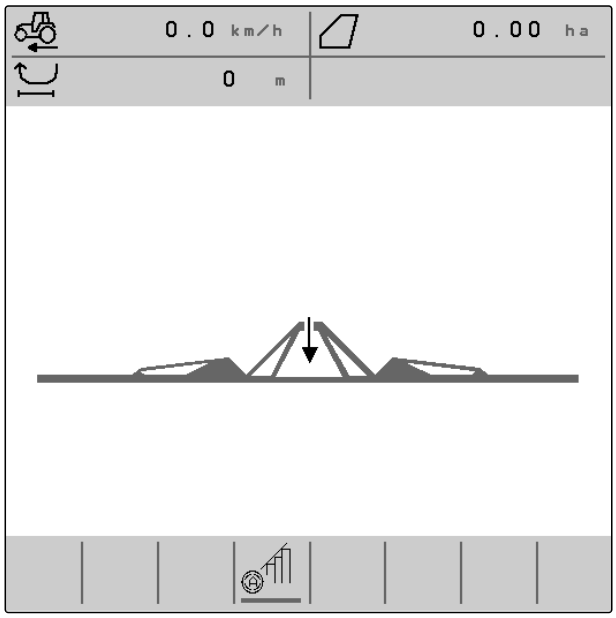
In the Work menu, a stylised implementslide rail shows whether the implement is folded or unfolded.

If a folded implement sliding rail is shown, the sections are folded and the support wheels are lifted.



CMS-I-00004421

If an unfolded implement sliding rail is shown, the sections are unfolded and the support wheels are lowered.



CMS-I-00004422

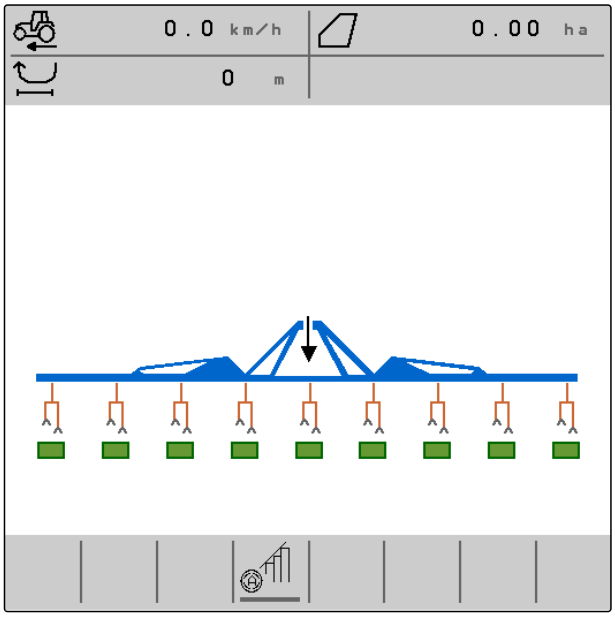
4.4 Display for the status of the implement

CMS-T-00008888-B.1

In the Work menu, the colours grey and blue show whether the implement is switched on or off.

When the implement is switched on using the 

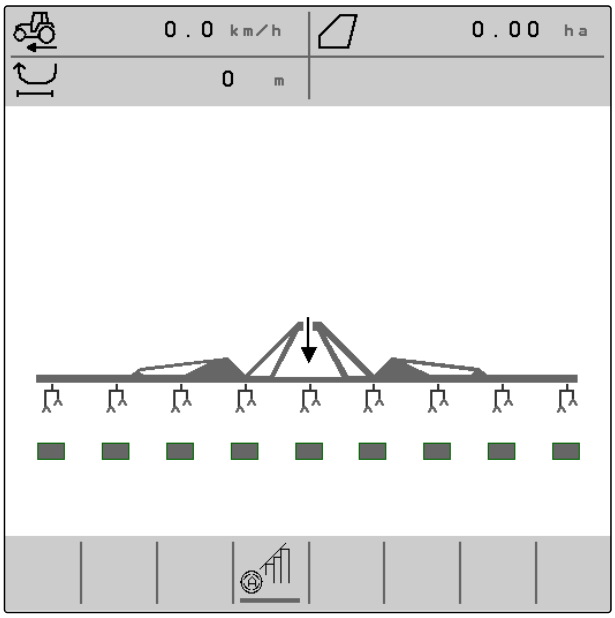
button, the colour of the implement slide rail changes from grey to blue. Switching on causes all activated parallelograms to be moved from transport position to working position, and the assigned rectangles change from grey to green on the display.



CMS-I-00006142

When the implement is switched off using the 

button, the colour of the implement slide rail changes from blue to grey. Switching off causes all activated parallelograms to be moved from working position to transport position, and the assigned rectangles change from green to grey on the display.



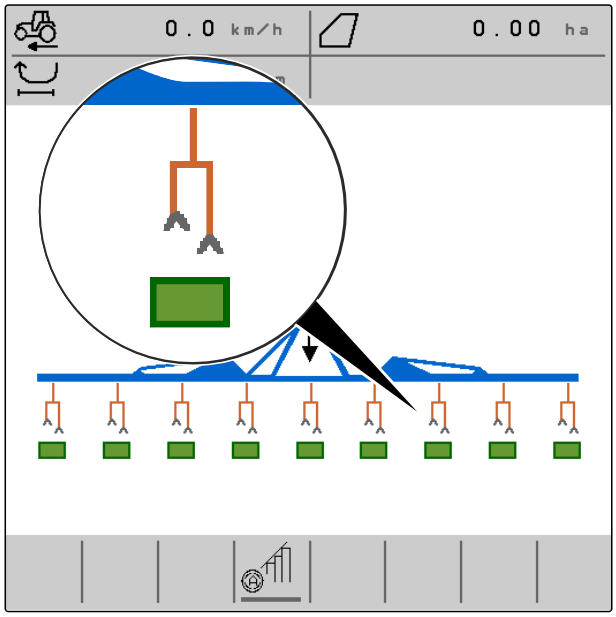
CMS-I-00006143

4.5 Display for the status and the position of the parallelograms

CMS-T-00006222-C.1

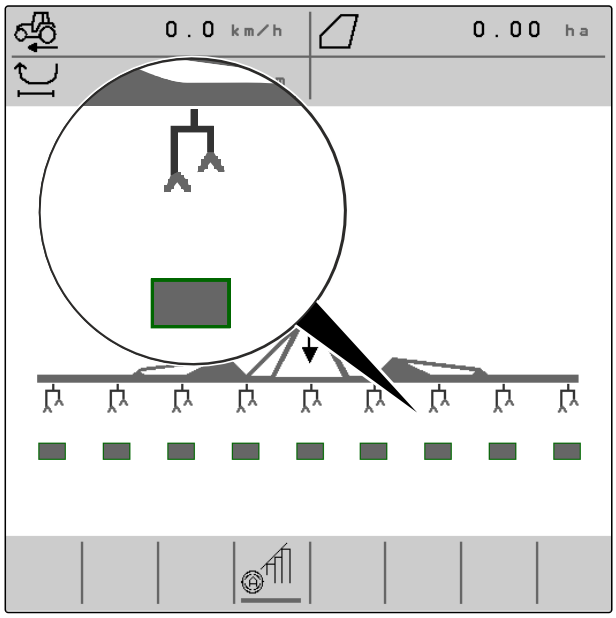
The Work menu shows whether a parallelogram is activated or deactivated, and whether a parallelogram is lifted or lowered.

Both when Section Control is switched off and when Section Control is switched on, activated parallelograms that are moved into working position are displayed with lowered, orange parallelogram symbols and rectangles filled in green.



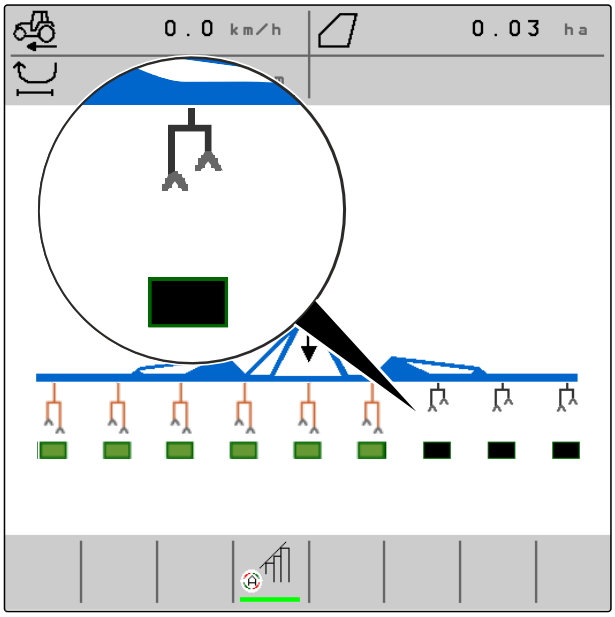
CMS-I-00004424

When Section Control is switched off, activated parallelograms that are moved in transport position by switching off the implement are displayed with lifted, black parallelogram symbols and rectangles filled in grey.



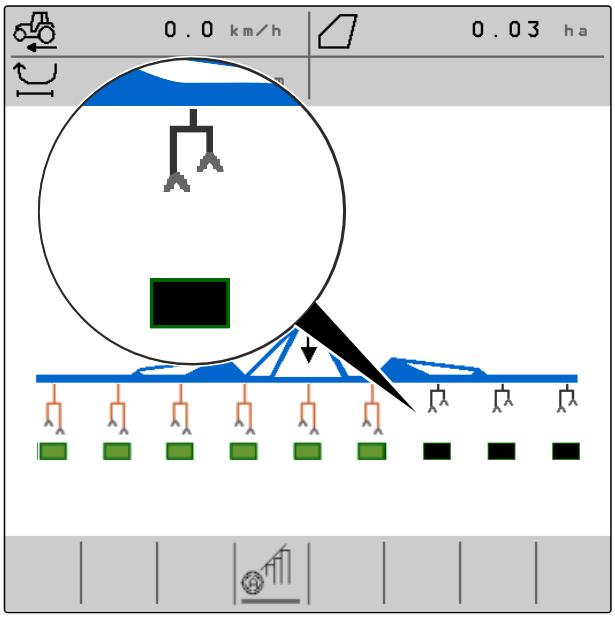
CMS-I-00004423

When Section Control is switched on, activated parallelograms that are moved in transport position by Section Control are displayed with lifted, black parallelogram symbols and rectangles filled in black.



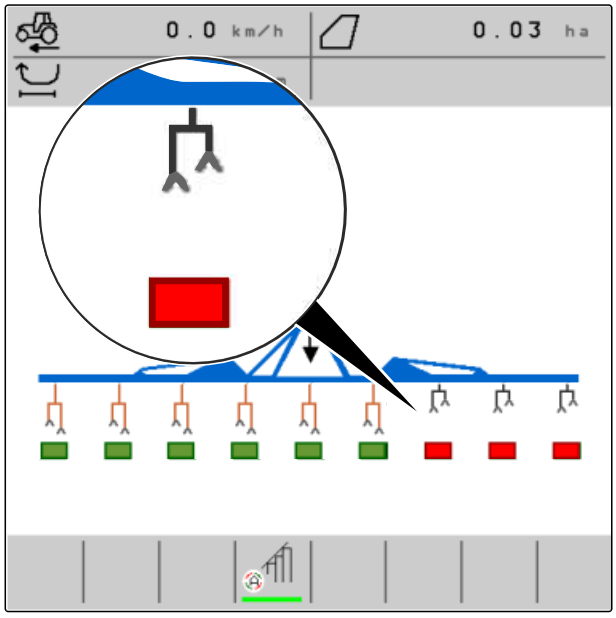
CMS-I-00006138

When Section Control is switched off, deactivated parallelograms that therefore in transport position are also displayed with lifted, black parallelogram symbols and rectangles filled in black.



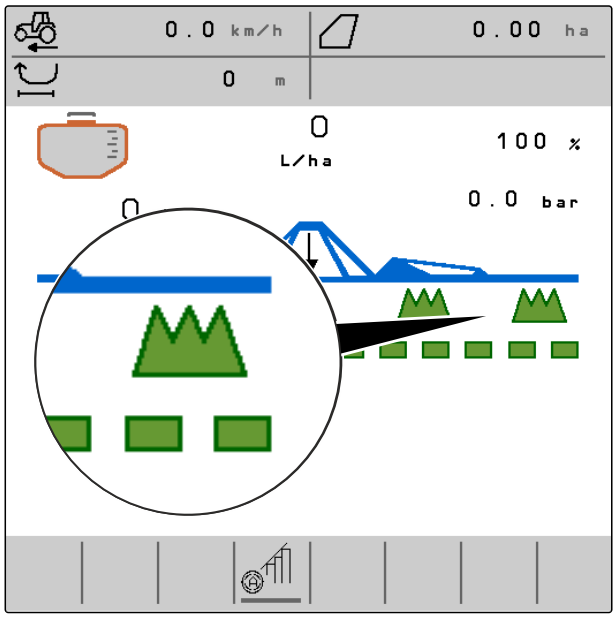
CMS-I-00006139

When Section Control is switched on, deactivated parallelograms that therefore in transport position are displayed with lifted, black parallelogram symbols and rectangles filled in red.



CMS-I-00006140

If the implement is equipped with a band sprayer, the status and position of the parallelograms are only shown with the squares in the lower row, and in the upper row, the status of the sprayer part-width sections is shown instead of the parallelogram symbols.



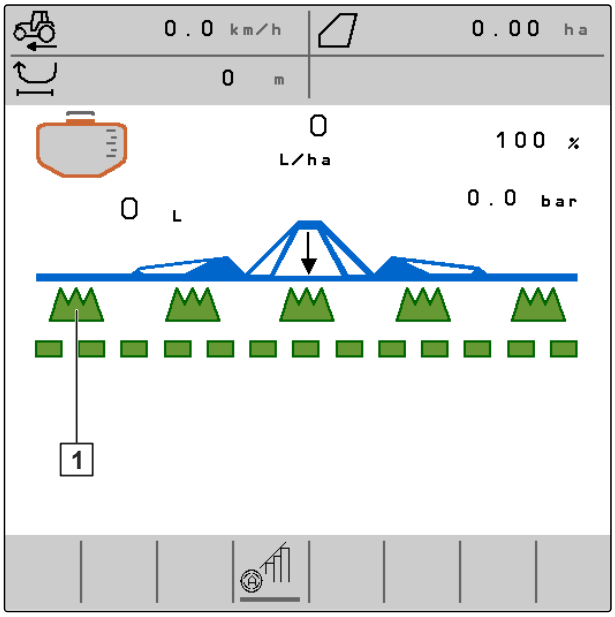
CMS-I-00010847

4.6 Display for the status of the sprayer part-width sections

CMS-T-00015618-A.1

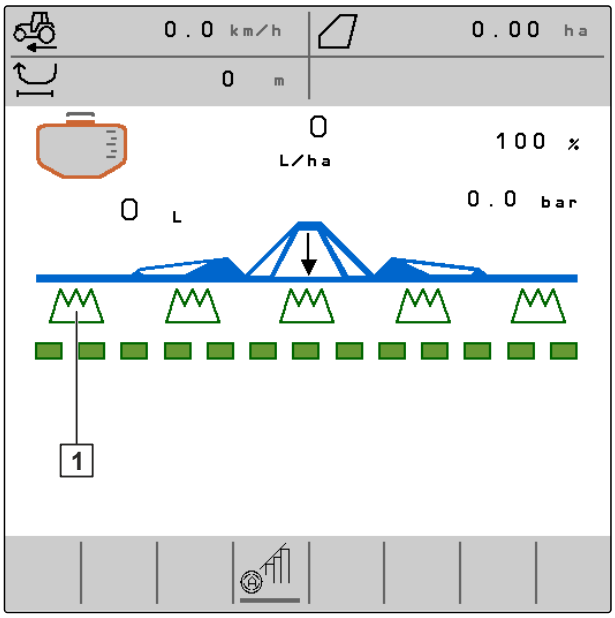
The Work menu shows whether a sprayer part-width section is activated or deactivated and whether a sprayer part-width section is switched on or off.

When the implement is switched on with ON/OFF and Section Control is switched off or on with A, sprayer part-width sections that were activated with + or + and switched on with ON/ OFF are shown with sprayer part-width section symbols with a green edge and green filling 1.



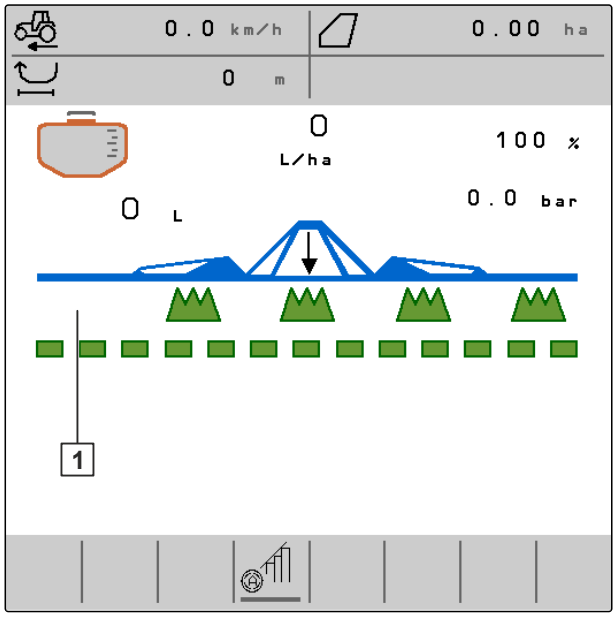
CMS-I-00010834

When the implement is switched on or off with ON/OFF and Section Control is switched off or on with A, sprayer part-width sections that were activated with + or + and switched off with ON/ OFF are shown with sprayer part-width section symbols with a green edge and white filling 1.



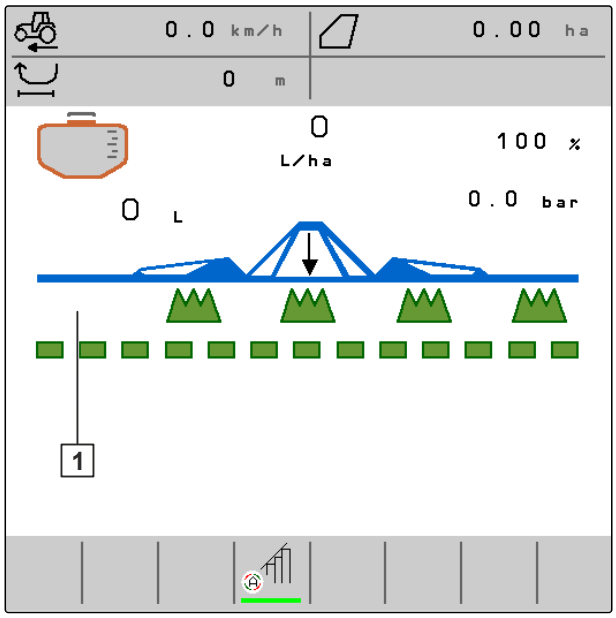
CMS-I-00010832

When the implement is switched on or off with ON/OFF and Section Control is switched off with , sprayer part-width sections that were deactivated with or are shown by the absence of the sprayer part-width section symbol 1.



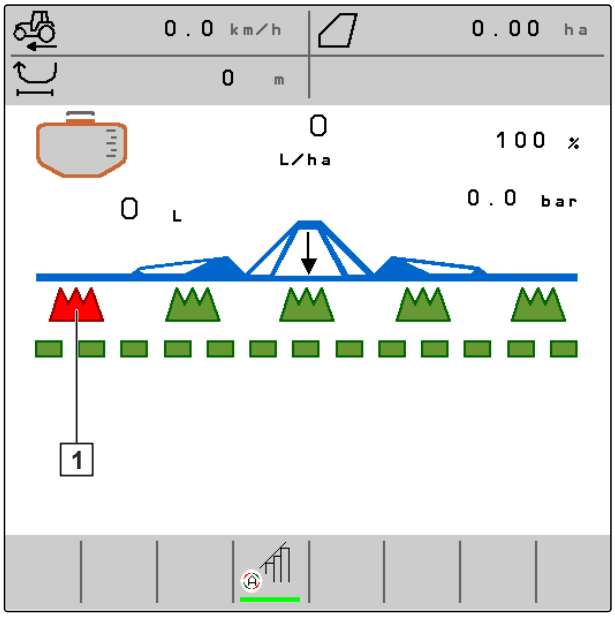
CMS-I-00010833

When the implement is switched on with ON/OFF and Section Control is switched on with , sprayer part-width sections that were activated with or and switched off by Section Control are also shown by the absence of the sprayer part-width section symbol 1.



CMS-I-00010850

When the implement is switched on with ON/OFF and Section Control is switched on with , sprayer part-width sections that were deactivated with or are shown with sprayer part-width section symbols with a red edge and red filling 1.



CMS-I-00010849

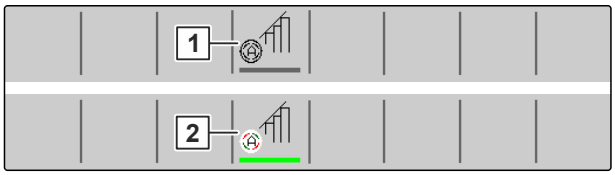
4.7 Status bar

CMS-T-00006265-C.1

The status bar shows whether Section Control is switched off or on.

1 Section Control is switched off

2 Section Control is switched on



CMS-I-00004465

4.8 Functions in the button bar

CMS-T-00006273-D.1

			ON/OFF	
Back.	Scroll through a menu with several pages.	Switch Section Control on and off.	Switch the machine on and off.	Activate deactivated parallelograms from right to left.

Activate deactivated parallelograms from left to right.	Deactivate activated parallelograms from left to right.	Deactivate activated parallelograms from right to left.	Activate the deactivated sprayer part-width sections from right to left.

			
Activate the deactivated sprayer part-width sections from left to right.	Deactivate the activated sprayer part-width sections from left to right.	Deactivate the activated sprayer part-width sections from right to left.	Increase the application rate.

			
Reduce the application rate.	Reset the application rate to 100 percent.	Switch activated sprayer part-width sections on and off.	Folding the front-mounted hoeing machine

			
Unfolding the front-mounted hoeing machine	Switch the display from day mode to night mode and vice versa.	Manage machine profiles and documentations.	Scroll in the button bar.

			
Clear all messages in the error memory.	Update the list of ISOBUS participants.		

Basic operation 5

CMS-T-00006279-C.1

5.1 Switching between the Field menu and the Settings

CMS-T-00006280-B.1

- To switch to the Field menu:

  Select 

  or

  To switch to the settings:

  select .



CMS-I-00004395

5.2 Switch to the previous menu

CMS-T-00000805-C.1

- Select  on the button bar.

5.3 Scrolling through the menus and button bar

CMS-T-00000806-C.1

- To scroll through the menus in the settings:

  select .

- To scroll through the button bar:

  select .

Entering the settings 6

CMS-T-00006288-D.1

6.1 Configuring the source for the speed signal

CMS-T-00006626-D.1

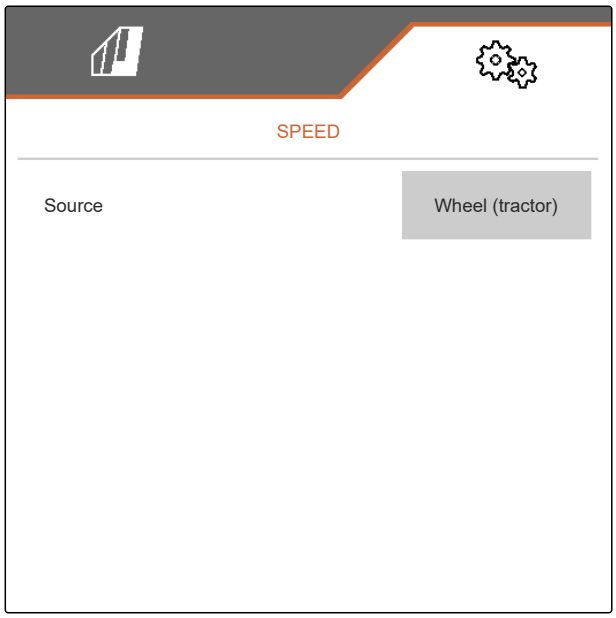
6.1.1 Using the ISOBUS speed signal

CMS-T-00000843-L.1

NOTE

To control the implement, a speed signal is required. Only existing signal inputs are shown as sources. If, for example, there is no speed signal from the tractor's radar sensor, this selection option will also not be offered.

For precise control of the implement, use a slip-free and stable ISOBUS speed signal.



CMS-I-00006151

1. In the "Settings" menu, select "Implement" > "Speed".
2. Under "Source", select "Radar (tractor)", "Wheel (tractor)" or "Satellite (NMEA2000)".

NOTE

Inaccurate speed signals cause faulty controls.

3. To check the accuracy of the speed signal: Compare the speed display of the tractor to the displayed speed on the control terminal.

➡ Both displays show comparable values.

6.2 Configuring the working position sensor

CMS-T-00006628-C.1

6.2.1 Configuring digital working position sensors

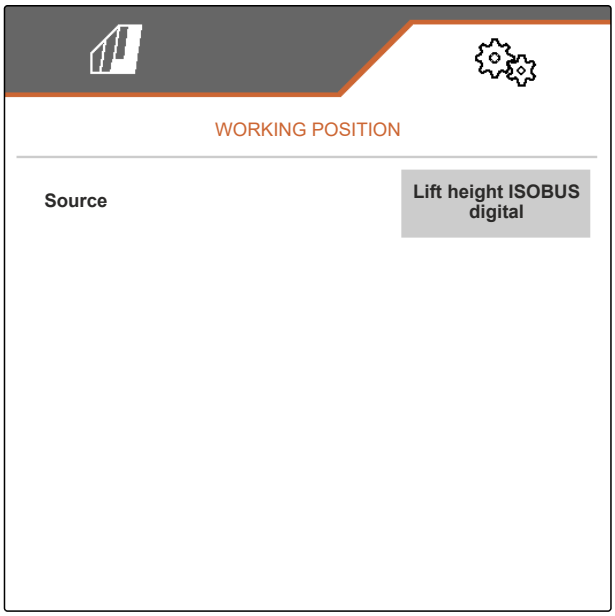
CMS-T-00008913-B.1

The working position sensor determines whether the implement is in working position. When the implement is

in working position, the work is documented and the hoe units are activated. When the implement is moved out of the working position, the documentation is stopped and the hoe units are deactivated.

1. In the "Settings" menu, select "Implement" > "Working position".

2. Under "Source", select "Lift height ISOBUS digital".



CMS-I-00002902

6.2.2 Configuring analogue working position sensors

CMS-T-00006629-C.1

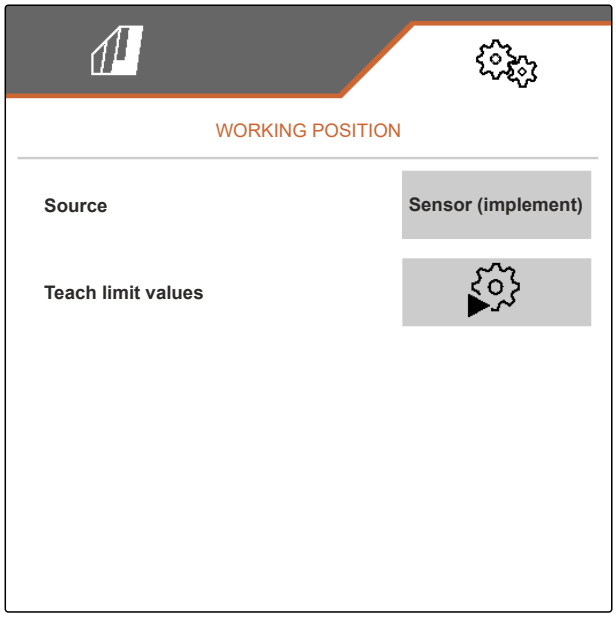
The working position sensor determines whether the implement is in working position. When the implement is in working position, the work is documented and the hoe units are activated. When the implement is moved out of the working position, the documentation is stopped and the hoe units are deactivated. To determine when the implement is in working position, the limit values must be taught-in.

1. In the "Settings" menu, select "Implement" > "Working position".

Only existing sources will be shown. If, for example, "Lift height ISOBUS analogue" is does not exist, this selection option will also not be offered.

2. Under "Source", select "Sensor (implement)" or "Lift height ISOBUS analogue".

3. Follow the instructions on the display under "Teach-in limit values".



CMS-I-00004504

6.2.3 Simulating the working position to record field boundaries

CMS-T-00015638-A.1

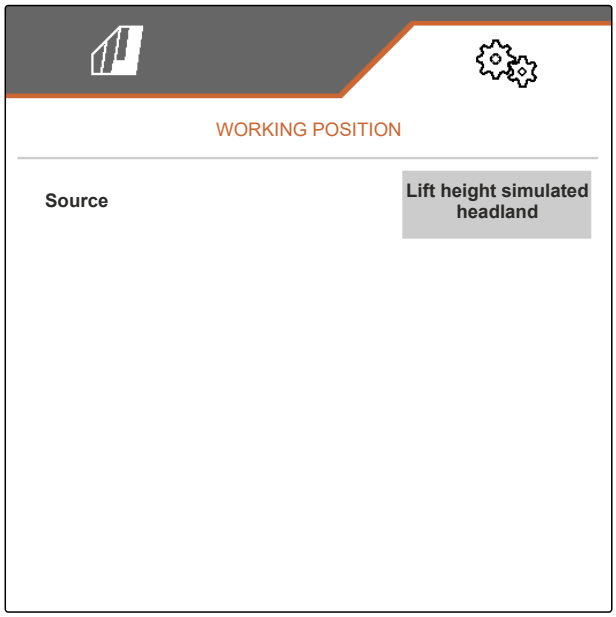
With the "Lifting height, simulated headland" setting, the lifted implement simulates that it is in working position. With this setting, it is possible to drive around and record the field boundaries with a lifted implement, although the implement is not actually in working position.

1. In the "Settings" menu, select "Implement" > "Working position".

2. Under "Source", select "Lifting height, simulated headland".

NOTE

After a recording with simulated working position, the previous source must be set again.



CMS-I-00010232

6.3 Configuring ISOBUS

CMS-T-00006310-C.1

6.3.1 Configuring the buttons for Section Control

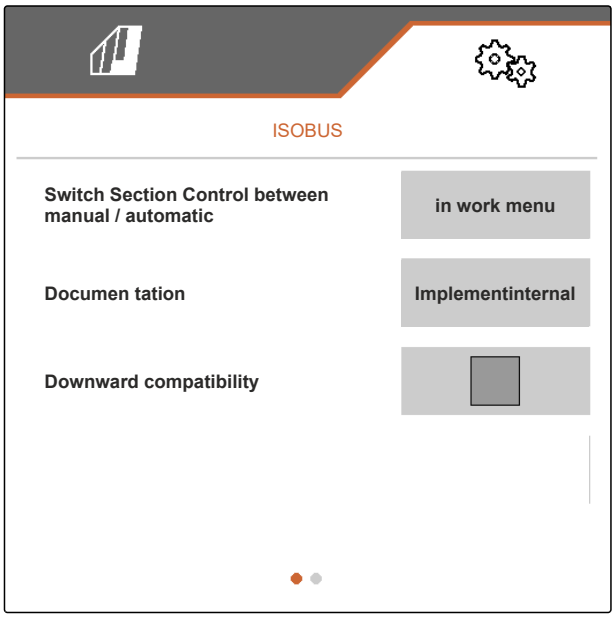
CMS-T-00006315-C.1

For Section Control, you can define whether Section Control can be switched on and off in the Work menu of the ISOBUS software or on the control terminal.

Possible settings:

- "In the GPS menu"
  - Section Control can only be switched on and off via the control terminal. The  icon in the status bar of the Work menu is only a display.
- "In the Work menu"
  - Section Control can be switched on and off in the Work menu with the  button in the button bar or with the  icon in the status bar. Section Control can also be switched on and off via the control terminal.

1. In the "Settings" menu, select "Implement" > "ISOBUS".
2. Under "Switch Section Control Manual / Automatic", select the desired position.



CMS-I-00004591

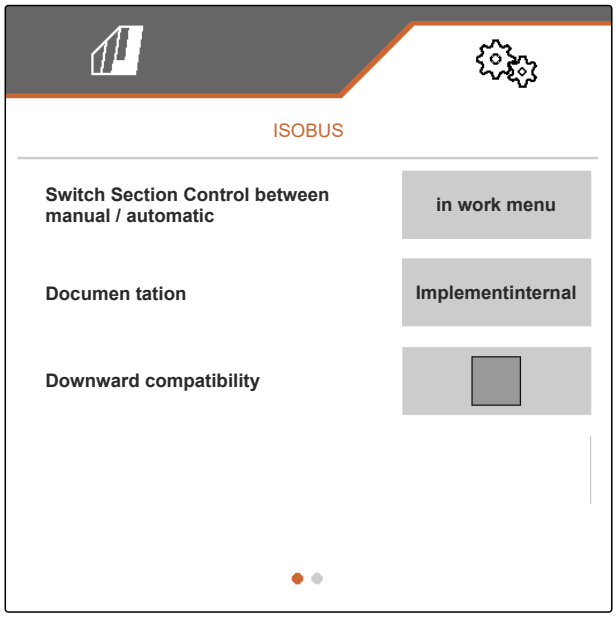
6.3.2 Setting the storage locations for the documentation

CMS-T-00006313-C.1

The storage location defines whether the documentation is saved on the implement's job computer or on the control terminal.

1. In the "Settings" menu, select "Implement" > "ISOBUS".

2. Under "Documentation", select the desired storage location.



CMS-I-00004591

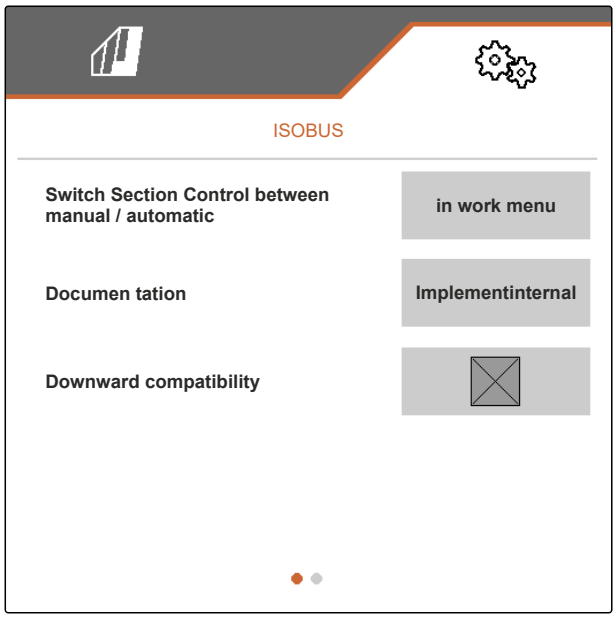
6.3.3 Switch on downward compatibility

CMS-T-00006316-C.1

When downward compatibility is activated, the implement can also communicate with older control terminals in terms of the ISOBUS version and is reliably detected by these control terminals.

1. In the "Settings" menu, select "Implement" > "ISOBUS".

2. If the implement is not detected by the control terminal: activate "Downward compatibility".

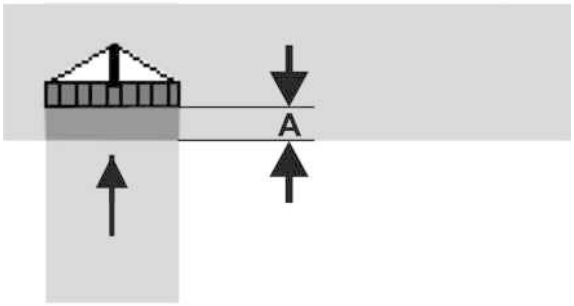
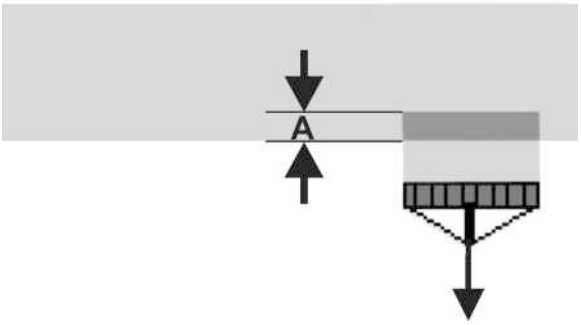


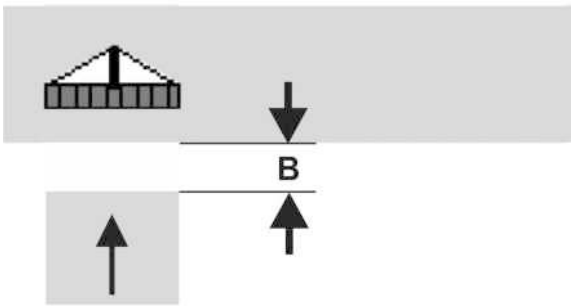
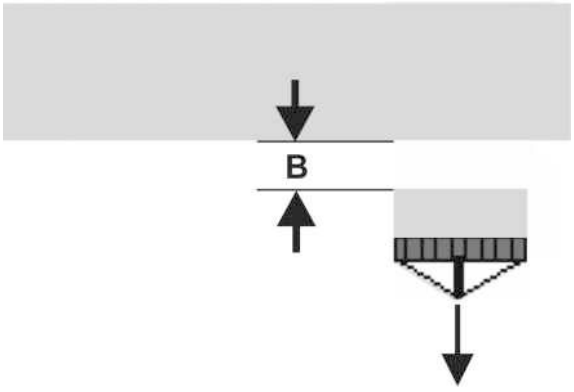
CMS-I-00004601

6.3.4 Configuring Section Control

CMS-T-00006311-C.1

When the hoeing machine or band sprayer are controlled per Section Control, it takes a few hundred milliseconds until the hoeing machine or band sprayer respond. These delays can cause overlaps or unworked or unsprayed areas. The switching times compensate for these delays when switching on and off.

Switch-off delay	**Switch-on delay**
Switching off when entering a worked or sprayed area	Switching on when moving off a worked or sprayed area
	
(A) Length of the overlap	

Switch-off delay	**Switch-on delay**
Switching off when entering a worked or sprayed area	Switching on when moving off a worked or sprayed area
	
(B) Length of the unworked or unsprayed area	

1. In the "Settings" menu, select "Implement" > "ISOBUS".
2. Scroll to the second page of the menu with .

3. If overlaps are produced when entering a worked or sprayed area:
   Increase the switch-off delay or band sprayer switch-off delay

   or

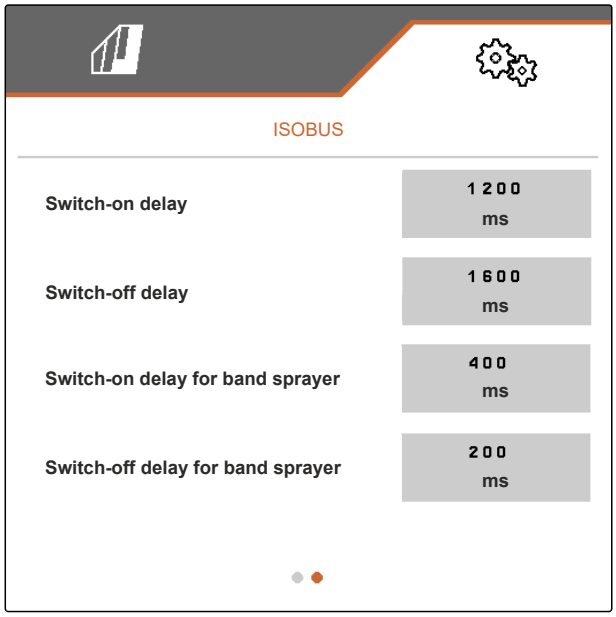
   If unworked or unsprayed areas are produced when entering a worked or sprayed area:
   Reduce the switch-off delay or band sprayer switch-off delay

   or

   If overlaps are produced when moving off a worked or sprayed area:
   Reduce the switch-on delay or the band sprayer switch-on delay

   or

   If unworked or unsprayed areas are produced when moving off a worked or sprayed area:
   Increase the switch-on delay or the band sprayer switch-on delay



CMS-I-00004596

6.4 Activating the electronic load sensing system

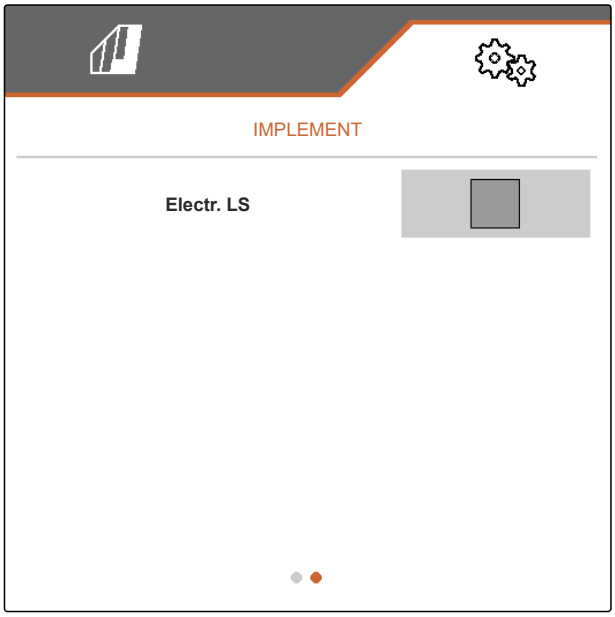
CMS-T-00020303-A.1

If the hoeing machine is equipped with hydraulic package III or IV, the electronic load sensing system must be activated.

1. In the "Settings" menu, select "machine".

2. Scroll to the second page of the menu with .

3. Activate "Electr. LS".



CMS-I-00014872

6.5 Setting the display

CMS-T-00006318-C.1

6.5.1 Changing the multi-function display

CMS-T-00006319-C.1

4 different values van be displayed in the Work menu on the multi-function display. The following table contains all of the available values.

Value	Explanation
Speed	Current speed in km/h
Spray liquid pumps speed	Current speed of the spray liquid pump in 1/min
Distance counter	Driven distance in m
Remaining distance	Distance in m that can still be worked with the remaining quantity of crop protection liquid or liquid fertiliser at the current application rate
Target spray pressure	Target pressure of the sprayer in bar
Quantity	Actual applied quantity of crop protection liquid or liquid fertiliser in l
Tank fill level	Quantity of crop protection liquid or liquid fertiliser in the front tank in l
Target application rate	Target application rate for crop protection liquid or liquid fertiliser in l/ha
Remaining area	Area in ha that can still be worked with the remaining quantity of crop protection liquid or liquid fertiliser at the current application rate
Area	Worked or sprayed area in ha

Value	Explanation
Implement capacity	Display of the implement capacity in the form of a bar diagram

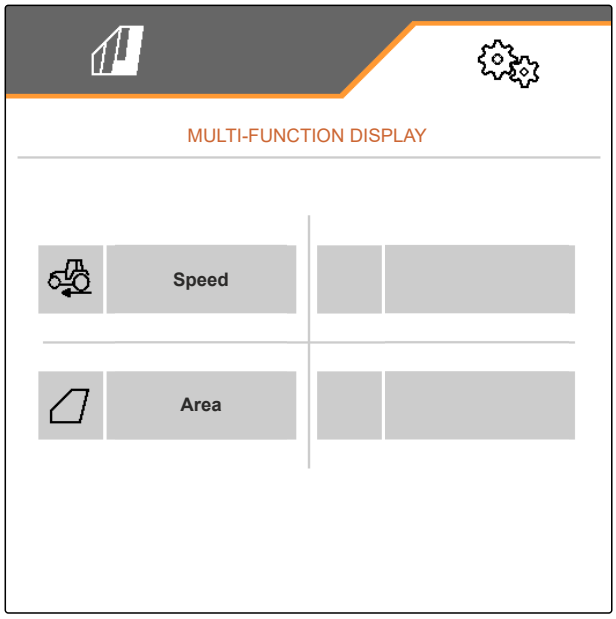
1. In the "Settings" menu, select "Display" > "Multi-function display".

2. To change a display:
   Select the desired display.

➡ A list with the available values will be displayed.

3. Select the desired value from the list.

4. Confirm the selection.



CMS-I-00000679

6.5.2 Configuring the assignment of the Work menu button bar

CMS-T-00006320-C.1

The assignment of the Work menu button bar can be configured. To do so, an overview of all functions is shown on the left side and the button bar is shown on the right side. Functions that are already used have an orange checkmark in the overview of all functions.

1. In the "Settings" menu, select "Display" > "Work button assignment".

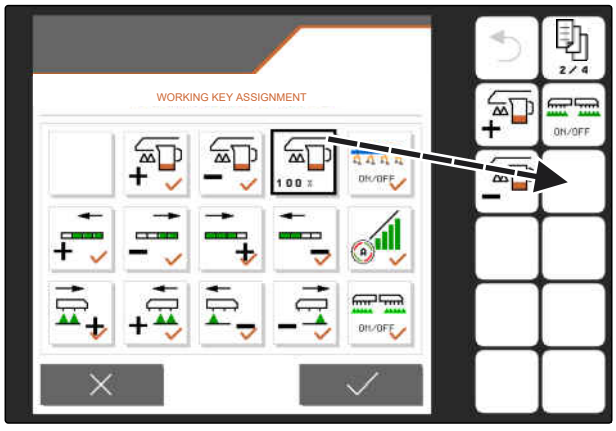
2. Select the desired function from the overview of all functions.

➡ The selected function will be framed in black.

3. In the button bar, use to scroll to the page where the button to be assigned should be located.

4. Select the desired button in the button bar.

➡ The selected key is assigned to the selected function.



CMS-I-00004681

5. Assigning other keys

   or

   Confirm the assignment with ✓

   or

   reject the assignment with ✗.

6.5.3 Assigning the control terminals

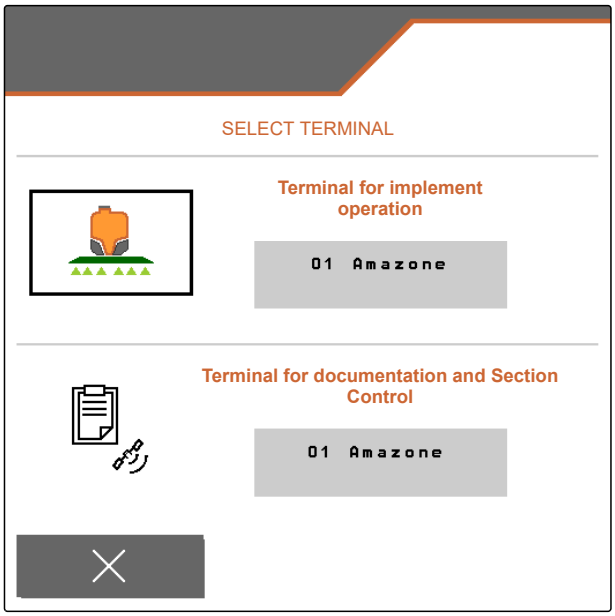
CMS-T-00006321-C.1

If multiple terminals are connected, the terminals can be assigned for implement operation, documentation, and Section Control. If only one control terminal is connected, this control terminal is automatically assigned.

1. In the "Settings" menu, select "Display" > "Select terminal".
2. Under "Terminal for implement operation" and "Terminal for documentation and Section Control", select the desired control terminal from the list.
3. Confirm the selection with ✓

   or

   Discard the selection with ✗.



CMS-I-00004608

6.5.4 Configuring the day/night mode

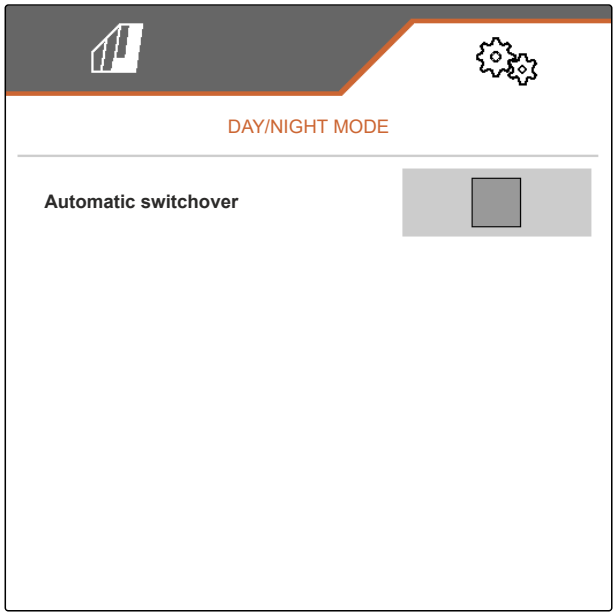
CMS-T-00006322-B.1

Switching between day mode and night mode can be done manually or the display can switch automatically between day mode and night mode. If automatic switching is activated, the switch points for switching to day mode and night mode can be configured.

1. In the "Settings" menu, select "Display" > "Day/night mode".

2. If you want automatic switching between day mode and night mode:
activate "Automatic switching".

➡ The settings for automatic switching will be shown.



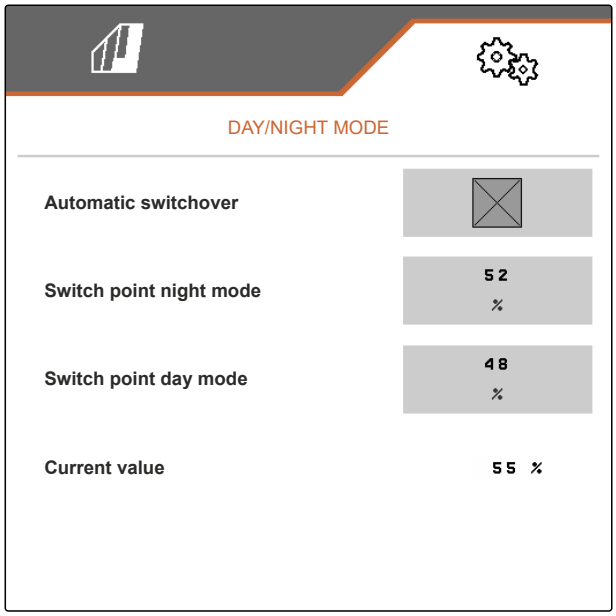
CMS-I-00004613

Under "Current value", the current ambient brightness is shown in percent.

The percent values under "Night mode switch point" and "Day mode switch point" indicate the current value for the ambient brightness at which the display switched to the corresponding mode.

3. When an ambient brightness has been reached at which the display should switch to night mode:
enter the percent value under "Current value" for "Night mode switch point".

4. When an ambient brightness has been reached at which the display should switch to day mode:
enter the percent value under "Current value" for "Day mode switch point".



CMS-I-00004612

Managing profiles

7

CMS-T-00006443-D.1

7.1 Creating a new profile

CMS-T-00006445-D.1

In a profile, all of the user-related settings are saved. In the delivery condition, a profile has already been configured. The configured profile is named "Profile 1".

1. At the bottom left of the Field menu, select the button that shows the active profile.

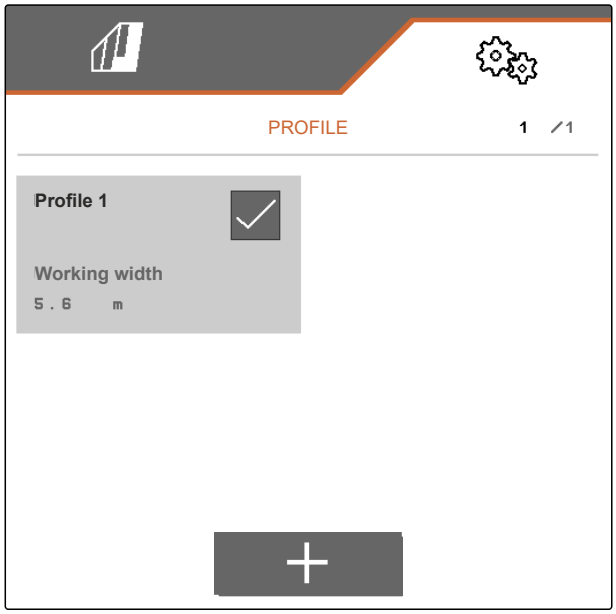


CMS-I-00004309

2. Select +.

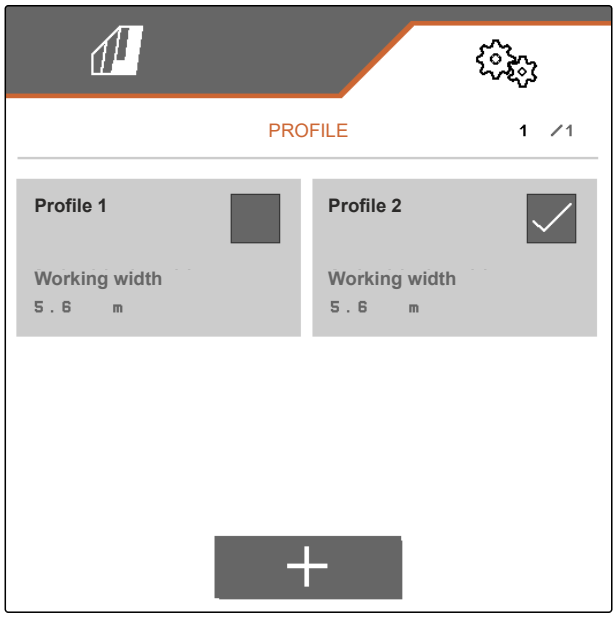
   or

   Call up an existing profile and select .



CMS-I-00004636

➡ A new profile has been created and activated.



CMS-I-00004637

3. Select the newly created profile.

4. Enter the profile name.

5. Confirm the entry with ✓.

➡ The new profile is named.



CMS-I-00004639

7.2 Activating a profile

CMS-T-00006444-D.1

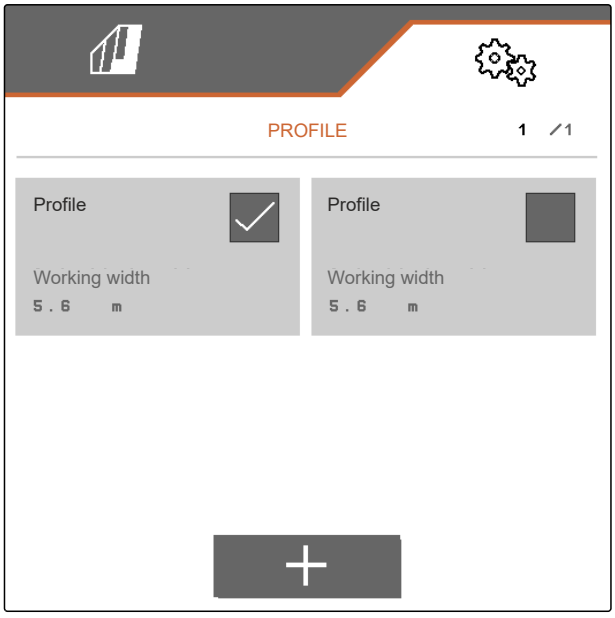
If there is more than one profile, a profile other than the active profile can be activated.

1. At the bottom left of the Field menu, select the button that shows the active profile.



CMS-I-00004309

2. Select the desired profile.



CMS-I-00006010

3. Activate the profile with ✓.



CMS-I-00004641

7.3 Renaming profiles

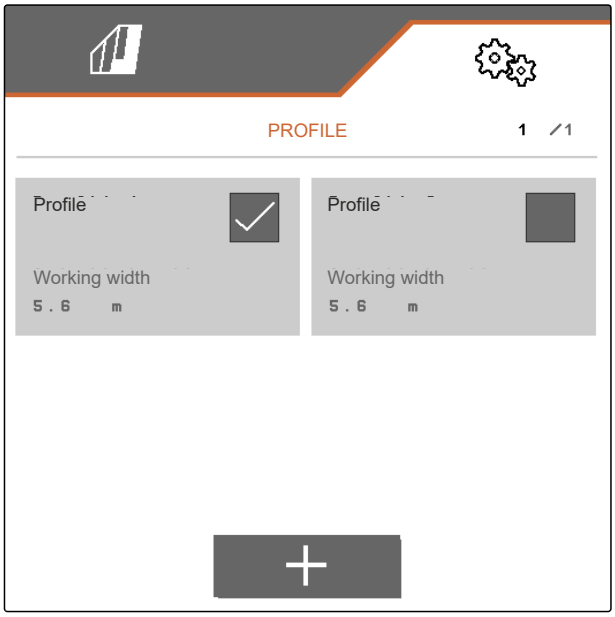
CMS-T-00006583-D.1

1. At the bottom left of the Field menu, select the button that shows the active profile.



CMS-I-00004309

2. Select the desired profile.



CMS-I-00006010

3. Enter the profile name.

4. Confirm the entry with ✓.



CMS-I-00006011

7.4 Deleting profiles

CMS-T-00006585-D.1

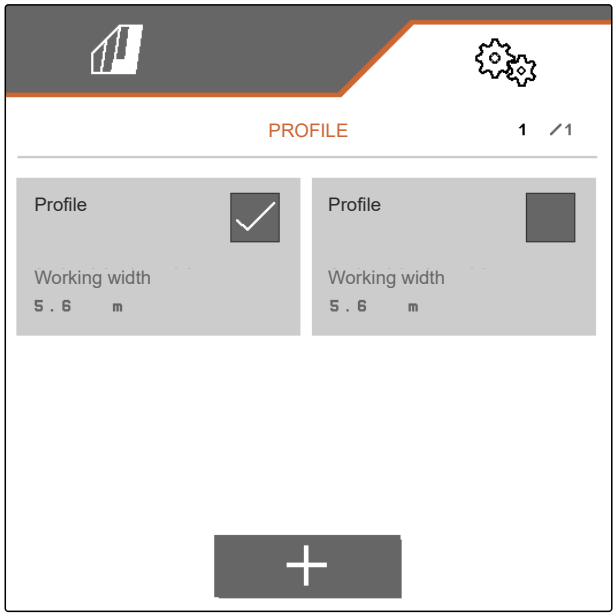
Only deactivated profiles can be deleted. A last activated profile must always exist and cannot be deleted.

1. At the bottom left of the Field menu, select the button that shows the active profile.



CMS-I-00004309

2. Select the desired profile.



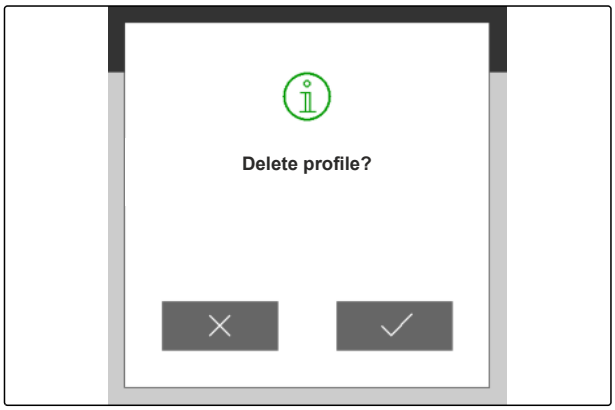
CMS-I-00006010

3. Select .



CMS-I-00004641

4. Confirm deleting with .



CMS-I-00004650

8 Managing and configuring implement profiles

CMS-T-00008757-C.1

8.1 Managing implement profiles

CMS-T-00008758-B.1

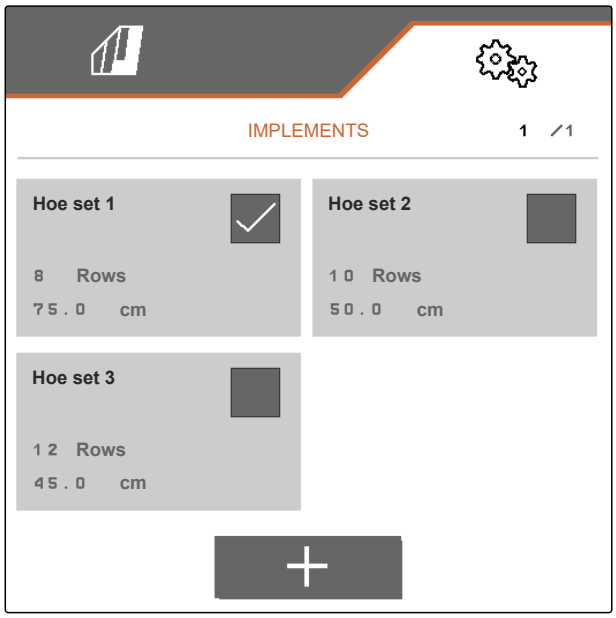
In an implement profile, all of the settings that apply for a specific implement combination are saved. In the delivery condition, an implement profile has already been configured. The configured implement profile is named "Hoe set 1". A maximum of 4 implement profiles can be created. When a new implement profile has been created, it must then be configured.

1. To call up the implement profile management: In the "Settings" menu, select "Implement" > "Implement profile".
2. select .
3. To create a new implement profile:

   Select +

   or

   To activate, rename or delete an implement profile: Select the desired implement profile from the overview and proceed in the same way as described in the section "Activating a profile", see page 34, "Renaming a profile", see page 35, or "Deleting a profile", see page 36.



CMS-I-00006012

8.2 Configuring an implement profile

CMS-T-00008759-C.1

8.2.1 Adjusting the rows

CMS-T-00008778-B.1

1. As described in the "Managing implement profiles" section, activate the implement profile for which the rows should be adjusted, see page 39.

2. In the "Settings" menu, select "Implement" > "Implement profile".

3. Enter the number of rows under "Number of rows".

NOTE

The number of rows is always one less than the number of parallelograms installed on the implement.

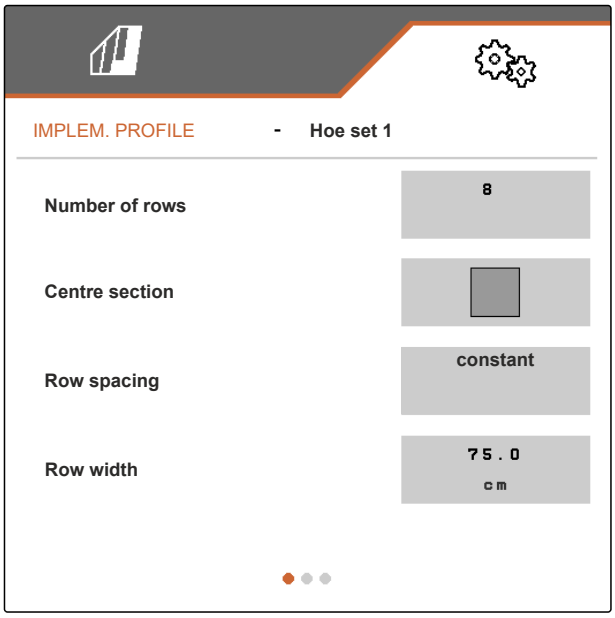
4. Under "Row spacing", select "Constant" or "Variable".

5. If "Constant" was selected under "Row spacing":
   Enter the value for the row width in cm under "Row width", otherwise continue with the next step.

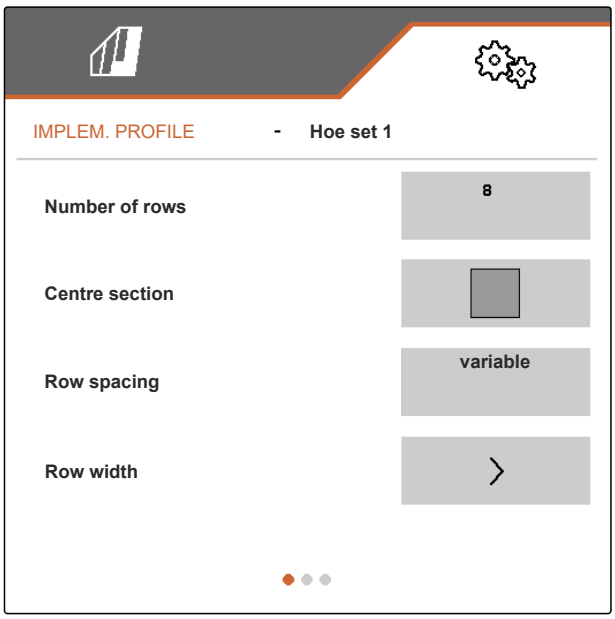
NOTE

If "Centre section" was activated, the "Row spacing" and "Row width" can be found on the second page of the menu, which can be scrolled to with .

6. If "Variable" was selected under "Row spacing":
   Select > under "Row width".



CMS-I-00006016

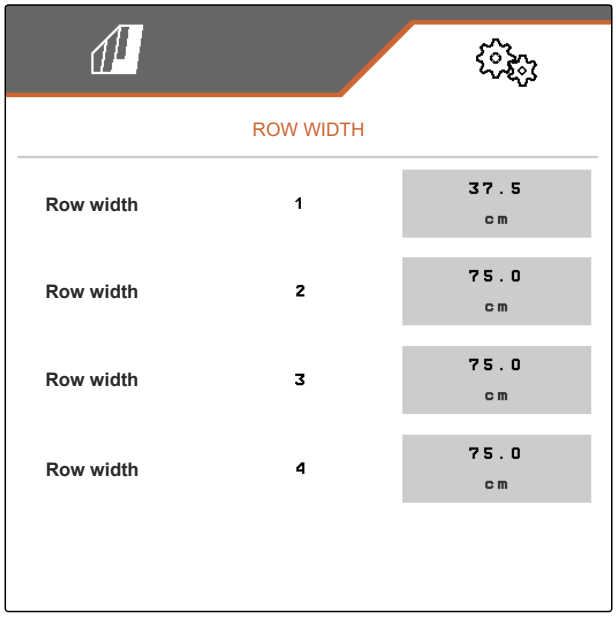


CMS-I-00006015

7. Under "Row width 1" to "Row width 4", enter the respective values for the row width in cm.

8. If the number entered under "Number of rows" is greater than 3:

   Scroll to the next page of the menu with .

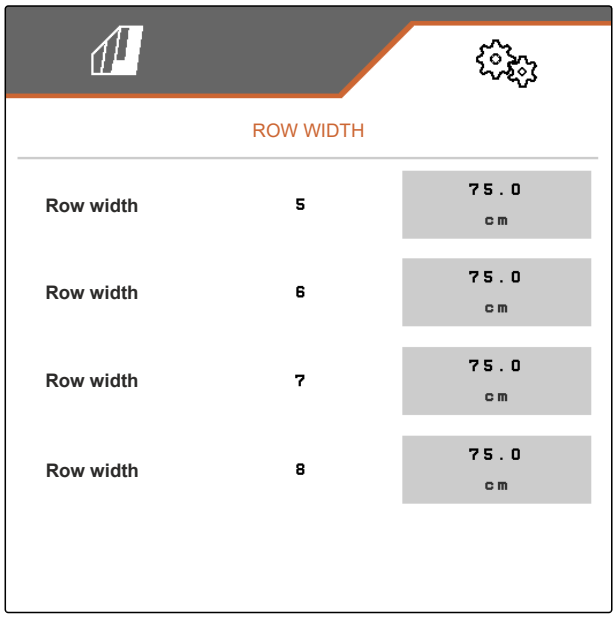


CMS-I-00006014

9. Under "Row width 5" to "Row width 8", enter the respective values for the row width in cm.

10. If the number entered under "Number of rows" is greater than 7:

    Scroll in the same way with and enter the values until all of the row widths have been set.



CMS-I-00006013

8.2.2 Activating and adjusting the centre section

CMS-T-00008779-C.1

Activating and adjusting the centre section causes the parallelograms on the centre segment of the machine slide rail not to be or remain lifted when folding the machine, rather they will be or remain lowered. Activation and adjustment must be performed if the hoeing machine belongs to the product types KPP-LSC 6 x 75, KPP-LSC 8 x 75 track 1500, KPP-LSC 12 x 45 or KPP-LSC 12 x 50.

1. If the machine belongs to the product types KPP-LSC 6 x 75, KPP-LSC 8 x 75 track 1500, KPP-LSC 12 x 45 or KPP-LSC 12 x 50:
   Activate the machine profile in which the centre section must be activated and adjusted as described in the "Managing machine profiles" section, see page 39.

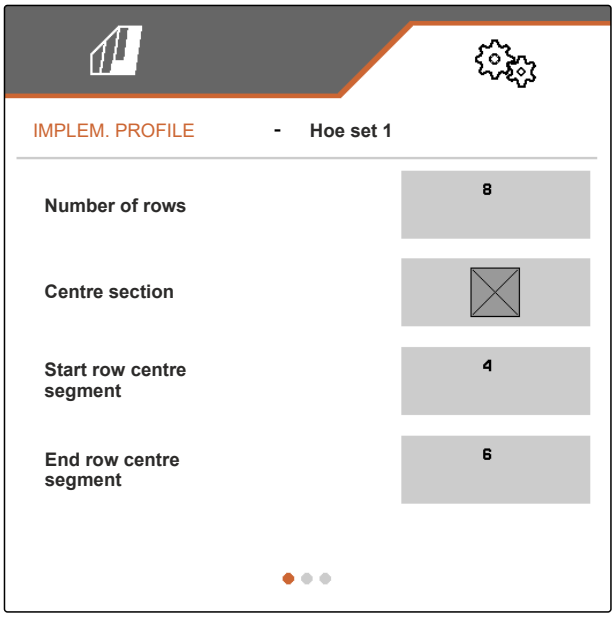
2. In the "Settings" menu, select "machine" > "machine profile".

3. Activate "Centre section".

➡ "Centre segment start row" and "Centre segment end row" will be displayed.

4. Under "Centre segment start row", indicate the parallelogram that represents the first parallelogram of the centre segment, counting from the outer left in the direction of travel.

5. Under "Centre segment end row", indicate the parallelogram that represents the last parallelogram of the centre segment, counting from the outer left in the direction of travel.



CMS-I-00013951

8.2.3 Adjusting the valve setting times

CMS-T-00008799-C.1

With the valve setting times, an machine equipped with hydraulically lifting parallelograms can be adjusted to the output of the tractor's hydraulic oil pump. The valve setting times control how long the valves of the hydraulic oil lines to the parallelograms remain open after a pulse has been issued to lift or lower the parallelograms. Adjusting the times ensures that the flow of hydraulic oil is maintained until the parallelograms have completely reached the end position when lifting or lowering.

1. As described in the "Managing machine profiles" section, activate the machine profile for which the valve setting times should be adjusted, see page 39.

2. In the "Settings" menu, select "machine" > "machine profile".

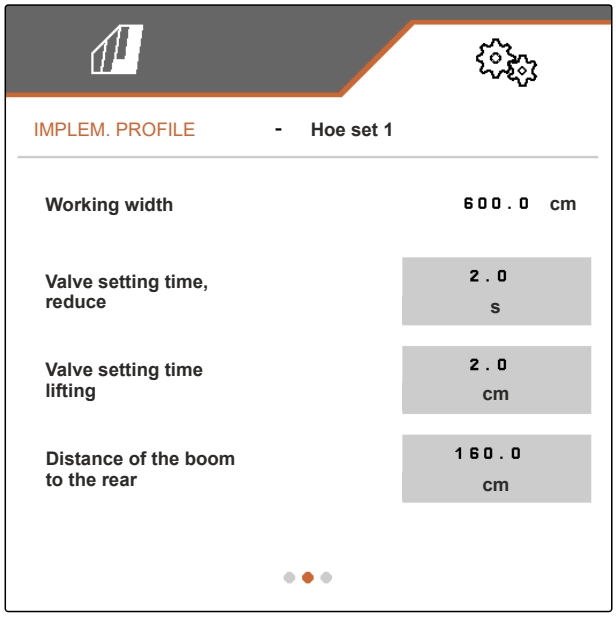
3. Scroll to the second page of the menu with .

4. To adjust the valve setting time for lowering the parallelograms:
   Enter the value for the time in s under "Valve setting time for lowering".

5. If "Centre section" is activated on the first page of the menu:

   Scroll to the third page of the menu with .

6. To adjust the valve setting time for lifting the parallelograms:
   Enter the value for the time in s under "Valve setting time for lifting".



CMS-I-00006095

8.2.4 Adjusting the distance of the boom to the rear

CMS-T-00020302-A.1

For all hoeing machines, the distance of the boom to the rear must be entered. For all rear-mounted machines, the value is 160 cm and is already entered. For all hoeing machines that are equipped with a front-mounted VB 2 front rack, the value must be determined manually by measuring and entered with a negative sign. The reference points for measuring are the three-point mounting frame and the first hoe share.

1. As described in the "Managing machine profiles" section, activate the machine profile for which the distance of the boom to the rear should be adjusted, see page 39.

2. In the "Settings" menu, select "machine" > "machine profile".

3. If "Centre section" is not activated on the first page of the menu:

   Scroll to the second page of the menu with 

   or

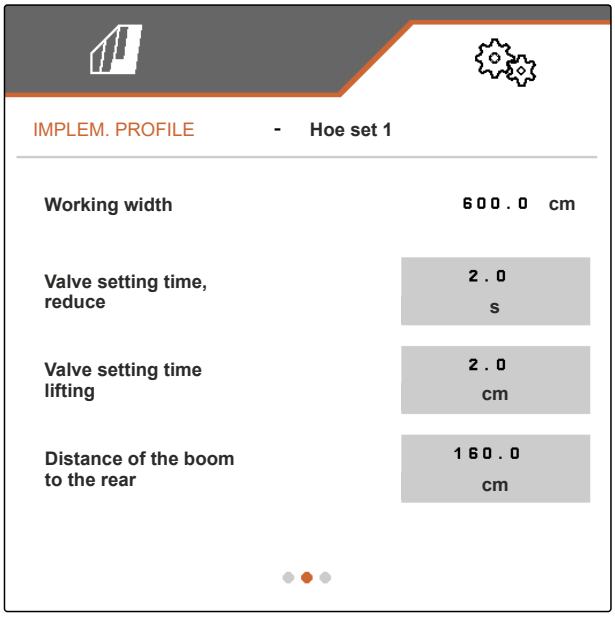
   If "Centre section" is activated on the first page of the menu:

   Scroll to the third page of the menu with .

4. If the machine is mounted behind the tractor:
   Under "Distance of the boom to the rear", enter the distance in cm with a positive value

   or

   If the machine with the VB 2 front rack is mounted in front of the tractor:
   Under "Distance of the boom to the rear", enter the distance in cm with a negative value.



CMS-I-00006095

8.2.5 Adjusting the asymmetry

CMS-T-00008870-C.1

If the machine has an asymmetrical layout, the offset of the machine relative to the tractor centre axis must be entered.

1. As described in the "Managing machine profiles" section, activate the machine profile for which the asymmetry should be adjusted, see page 39.

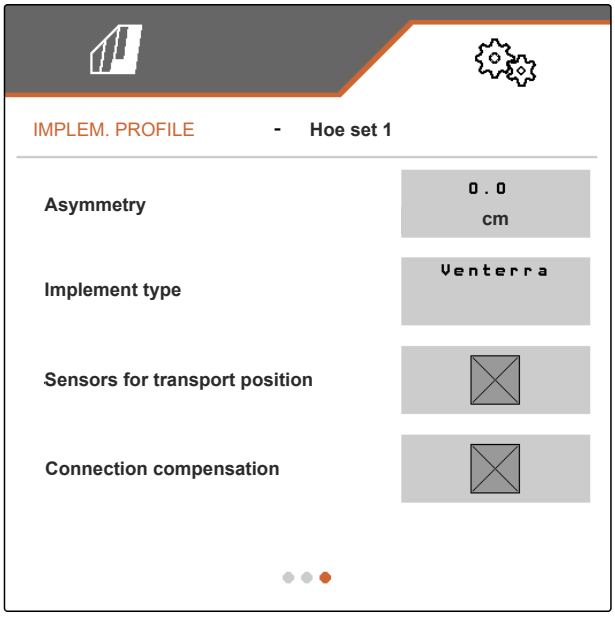
2. In the "Settings" menu, select "machine" > "machine profile".

3. Scroll to the third page of the menu with .

4. If the machine is offset to the left of the tractor centre axis viewed in the direction of travel:
   Enter the offset to the left with a negative value in cm under "Asymmetry"

   or

   If the machine is offset to the right of the tractor centre axis viewed in the direction of travel:
   Enter the offset to the right with a positive value in cm under "Asymmetry".



CMS-I-00006096

8.2.6 Setting the machine type

CMS-T-00008871-C.1

In the machine profile, information must be entered about the machine type.

1. As described in the "Managing machine profiles" section, activate the machine profile in which information on the machine type should be entered, see page 39.

2. In the "Settings" menu, select "machine" > "machine profile".

3. Scroll to the third page of the menu with .

4. If the machine belongs to the Venterra product type: Select "Venterra" under "machine type"

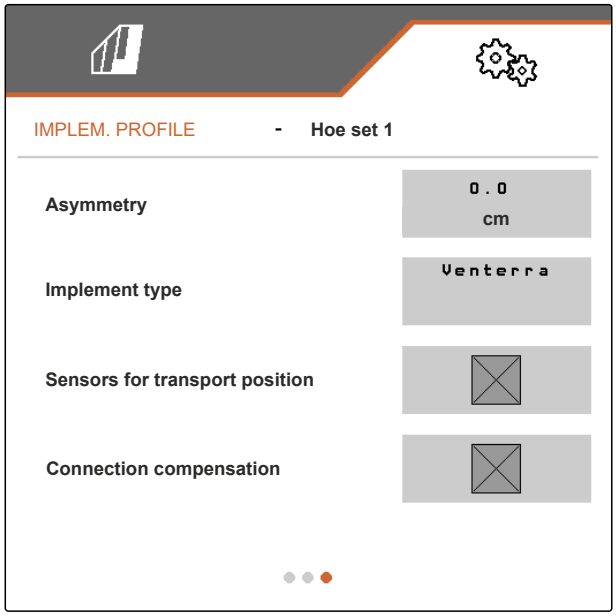
   or

   If the machine belongs to the SCHMOTZER product type: select "SCHMOTZER hoeing machine" under "machine type".

5. If the "Centre section" menu item is activated on the first page of the "Machine profile" menu:

   Scroll to the next page of the menu with .

6. If the machine belongs to the Venterra product type: activate the "Sensors for transport position" or leave them activated, otherwise deactivate them or leave them deactivated.



CMS-I-00006096

8.2.7 Switching on the bout connection compensation

CMS-T-00008763-C.1

When working with Section Control with small row spacings and poor GPS accuracy, there can be an undesired effect that the side parallelograms are constantly lifted and lowered in alternation. Activating the bout connection compensation prevents this effect by switching each of the two side parallelograms together with its neighbouring parallelogram.

1. As described in the "Managing machine profiles" section, activate the machine profile in which information on the machine type should be entered, see page 39.

2. In the "Settings" menu, select "machine" > "machine profile".

3. If "Centre section" is not activated on the first page of the menu:

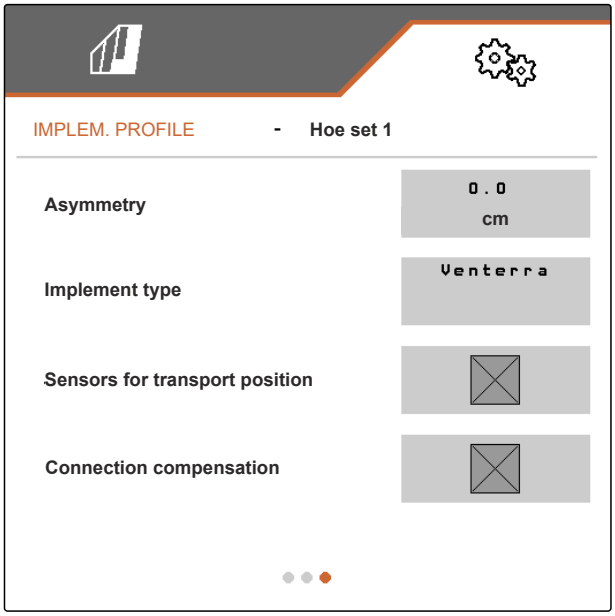
   Scroll to the third page of the menu with 

   or

   If "Centre section" is activated on the first page of the menu:

   Scroll to the fourth page of the menu with .

4. If fluttering of the side parallelograms occurs while working with the machine:
   activate the "Bout connection compensation".



CMS-I-00006096

Setting the band sprayer 9

CMS-T-00015680-B.1

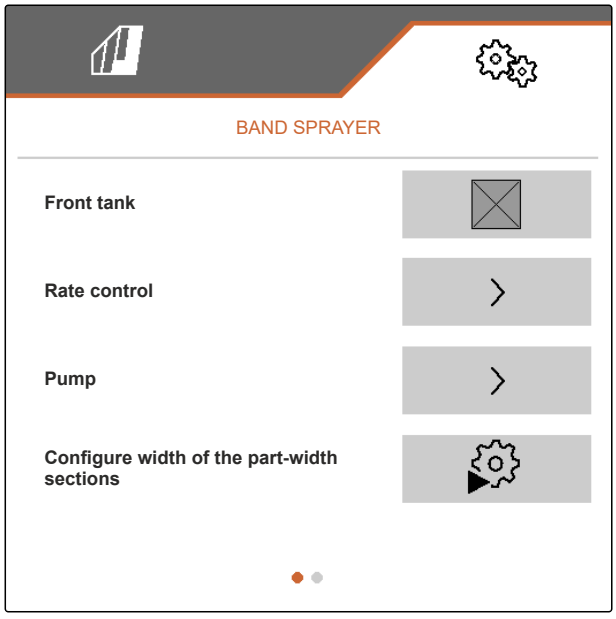
9.1 Activating the control of the band sprayer

CMS-T-00015681-A.1

If the hoeing machine is equipped with a band sprayer that is supplied from a front tank, and a crop protection product or liquid fertiliser should be applied at the same time while hoeing, the control of the band sprayer must be activated in the software.

1. In the "Settings" menu, select "Band sprayer".
2. Activate "Front tank".

➡ The setting options for the band sprayer will be shown.



CMS-I-00010252

9.2 Configuring the rate control

CMS-T-00015682-A.1

9.2.1 Defining the value for the rate increments

CMS-T-00015687-A.1

In the "Rate control" menu, the "Rate increments" option can be used to set the percent value by which the applied quantity of crop protection product or liquid fertiliser is

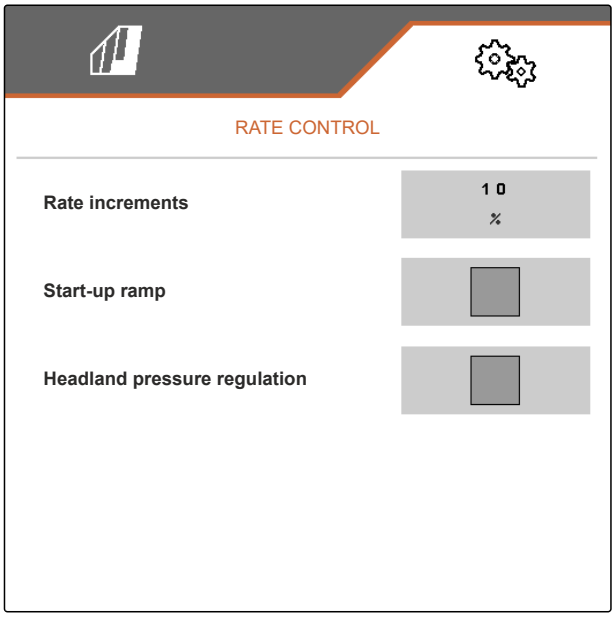
increased or reduced in the Work menu every time the and buttons are pressed.

1. In the "Settings" menu, select "Band sprayer".

2. Under "Rate control", select .

3. Enter the desired percent value under "Rate increments".

4. Confirm the value.



CMS-I-00010253

9.2.2 Configuring the start-up ramp

CMS-T-00015688-A.1

The start-up ramp prevents too little crop protection product or liquid fertiliser from being applied when the implement starts moving. Until the specified speed is reached or for the duration of the specified time, a higher rate than for the actual speed is already applied. After that, the rate control starts.

1. In the "Settings" menu, select "Band sprayer".

2. Under "Rate control", select .

3. Activate the start-up ramp under "Start-up ramp".

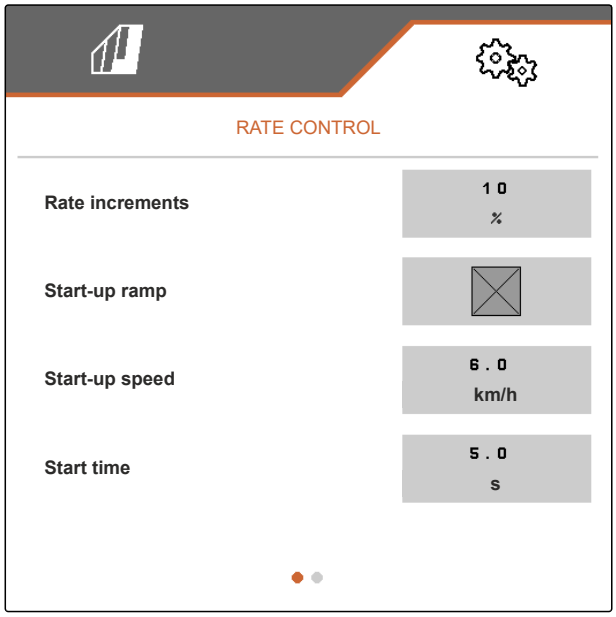
➡ The setting options for the start-up ramp will be shown.

4. Under "Start-up speed", enter the desired speed in km/h up to which a higher rate than for the actual speed is already applied.

5. Confirm the value.

6. Under "Start-up time", enter the desired time in s, during which a higher rate than for the actual speed is already applied.

7. Confirm the value.



CMS-I-00010254

9.2.3 Activating and adjusting the headland pressure regulation

CMS-T-00015685-A.1

Activation and adjustment of the headland pressure regulation causes the specified spraying pressure to be established when the implement is lifted. This function ensures that when driving out of the field and when turning on the headlands, the spray pressure doesn't drop and is already applied on the spraying nozzles with the required value when driving back onto the field to resume spraying. A value of 1 bis 2 bar above the operating pressure is recommended for the headland pressure, and it can be adjusted in a range of 0,1 bis 9,0 bar.

1. In the "Settings" menu, select "Band sprayer".

2. Under "Rate control", select > .

3. When "Start-up ramp" is activated:

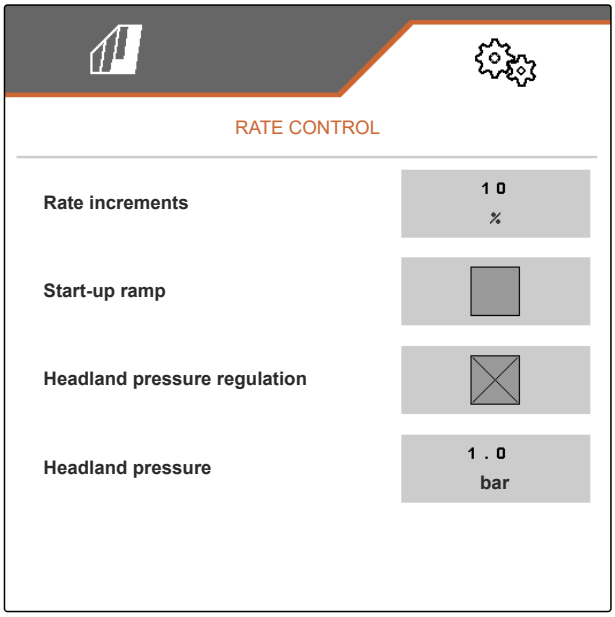
   Scroll to the second page of the menu with .

4. Activate the "Headland pressure regulation".

➡ "Headland pressure" will be displayed.

5. Under "Headland pressure", set the desired value in bar.

6. Confirm the value.



CMS-I-00010255

9.3 Setting the alarm limits

CMS-T-00015689-A.1

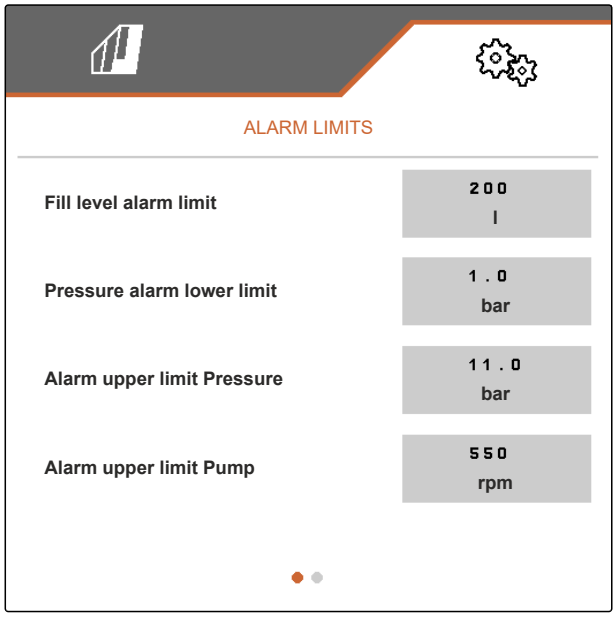
Through the "Alarm limits" menu, the following values can be set:

- The quantity of spray liquid in the front tank, below which a low level warning is issued in the Work menu
- The spray pressure below and above which a warning is issued in the Work menu, stating that the pressure is too low or too high
- The speed of the spray liquid pump below and above which a warning is issued in the Work menu, stating the the speed is too low or too high

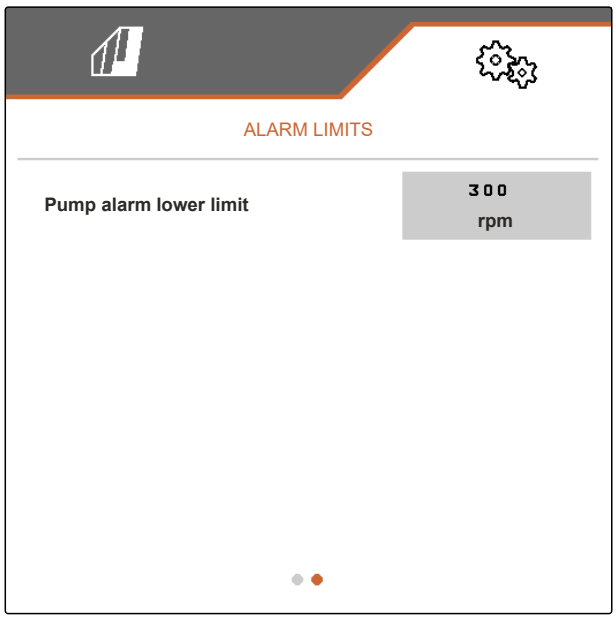
1. In the "Settings" menu, select "Band sprayer".

2. Under "Alarm limits", select > .

3. Under "Fill level alarm limit", enter the desired value in l, below which a low level warning is issued.
4. Confirm the value.
5. Under "Pressure alarm lower limit", enter the desired values for the spray pressure in bar below which a low pressure warning is issued.
6. Confirm the value.
7. Under "Pressure alarm upper limit", enter the desired values for the spray pressure in bar above which a high pressure warning is issued.
8. Under "Pump alarm upper limit", enter the desired values for the speed of the spray liquid pump in 1/min above which a high speed warning is issued.
9. Confirm the value.
10. Scroll to the second page of the menu with .
11. Under "Pump alarm lower limit", enter the desired values for the speed of the spray liquid pump in 1/min below which a low speed warning is issued.
12. Confirm the value.



CMS-I-00010257



CMS-I-00010256

9.4 Configuring the width of the part-width sections

CMS-T-00015683-B.1

1. In the "Settings" menu, select "Band sprayer".
2. Under "Configure width of the part-width sections", select .

3. Enter the number of sprayer part-width sections under "Number of part-width sections".

NOTE

Currently, only a maximum of 5 sprayer part-width sections can be specified.

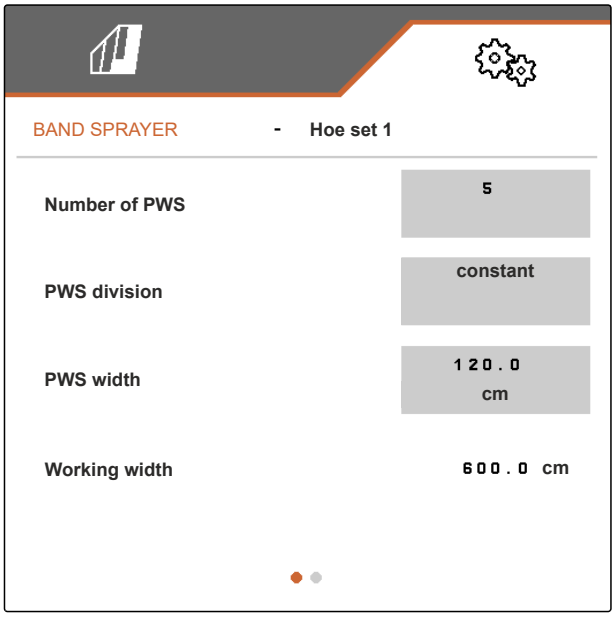
4. Confirm the value.

5. Under "Part-width section division", select "Constant" or "Variable".

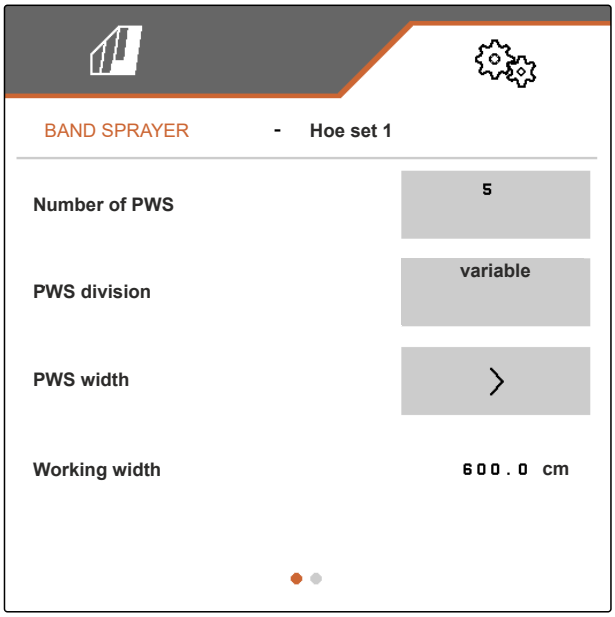
6. Confirm the value.

7. If "Constant" was selected under "Part-width section division":
   Under "Part-width section width", enter the value for the part-width section width in cm and confirm and continue with step 14, otherwise continue with the next step.

8. If "Variable" was selected under "Part-width section division":
   Select > under "Part-width section width".



CMS-I-00010261

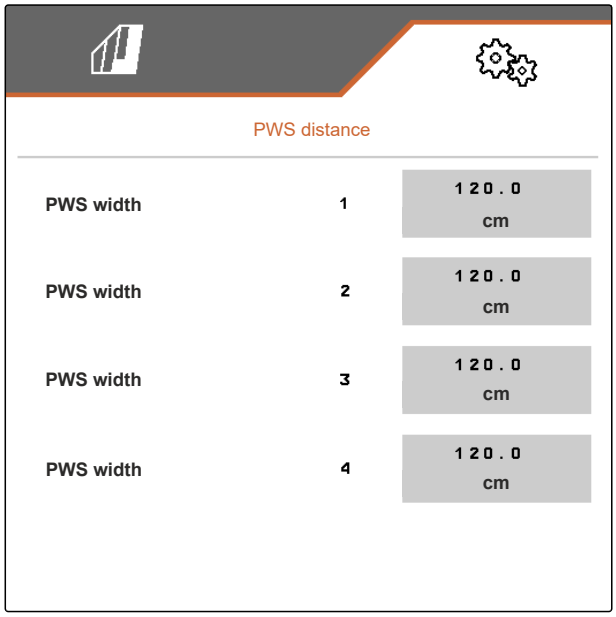


CMS-I-00010258

9. Under "Part-width section width 1" to "Part-width section width 4", enter the value for the respective part-width section width in cm and confirm.

10. If the number entered under "Number of part-width sections" is greater than 4:

    Scroll to the next page of the menu with .



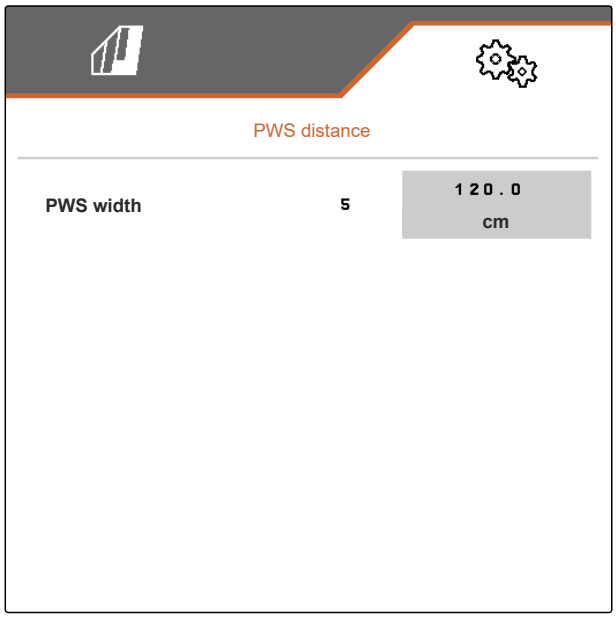
CMS-I-00010260

11. Under "Part-width section width 5", enter the value for the part-width section width in cm.

12. Confirm the value.

13. Return to the previous menu with .

14. Scroll to the second page of the menu with .



CMS-I-00010259

15. Under "Row width", enter the value for the row width in cm.

The band width is the spraying width of the band sprayer and is required by the application rate calculator for calculating the target rate. The band width can also be entered in the "Target rates" menu, see page 61. The value for the band width is usually 10 bis 20 cm.

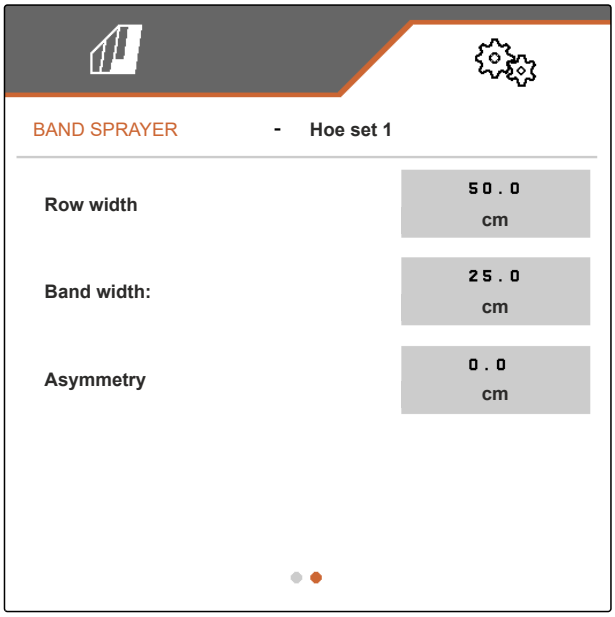
16. Under "Band width", enter the value for the band width in cm.

If the machine has an asymmetrical layout, the offset of the machine relative to the tractor centre axis must be entered.

17. If the machine is offset to the left of the tractor centre axis viewed in the direction of travel:
Enter the offset to the left with a negative value in cm under "Asymmetry" and then confirm

or

If the machine is offset to the right of the tractor centre axis viewed in the direction of travel:
Enter the offset to the right with a positive value in cm under "Asymmetry" and then confirm.



CMS-I-00015480

9.5 Adjusting the oil supply to the spray liquid pump

CMS-T-00015684-A.1

If the implement is equipped with hydraulic package 4, the hydraulic oil supply to the spray liquid pump can be adjusted with the two last menu items in the "Band sprayer" menu. The valve opening of the hydraulic oil line from the tractor pump to the spray liquid pump must be adjusted with a percent value so that the spray liquid pump reaches the desired speed. The recommended speed is 500 1/min and is reached with a value of 46 percent.

1. In the "Settings" menu, select "Band sprayer".

2. Scroll to the second page of the menu with .

3. Under "Valve current, hydr. pump", enter a value between 0 and 100 for the valve opening in percent.

4. Confirm the value.

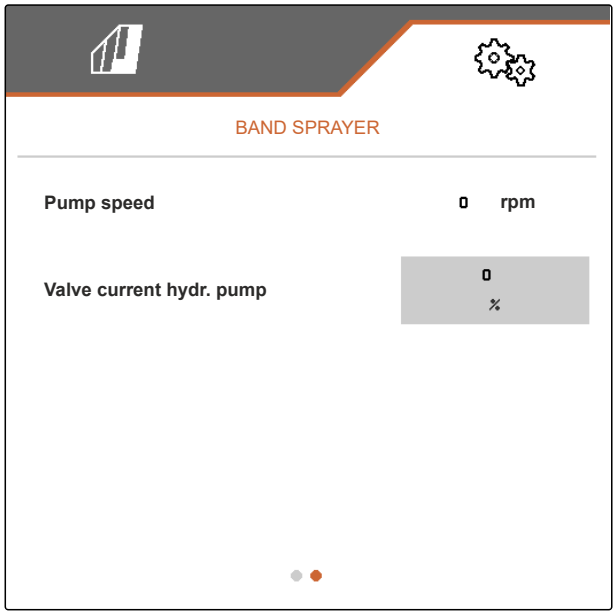
5. Check whether the displayed pump speed in the line above corresponds to the desire pump speed.

6. If the displayed pump speed is lower than the desired pump speed:
   Enter a higher value under "Valve current, hydr. pump" and confirm

   or

   If the displayed pump speed is higher than the desired pump speed:
   Enter a lower value under "Valve current, hydr. pump" and confirm.

7. Repeat the previous step until the desire pump speed is reached.



CMS-I-00010264

Working

10

CMS-T-00006287-D.1

10.1 Hoeing or hoeing and spraying

CMS-T-00006063-D.1

REQUIREMENTS

- Profile is selected, see page 32
- Settings are made, see page 21
- machine profile is selected and configured, see page 39
- If you want to spray at the same time as hoeing: band sprayer activated and configured
- The machine is error free
- The machine is in working position
- For Section Control: Section Control is activated on the control terminal

1. If the hoeing machine can be folded hydraulically and is mounted at the front of the tractor with front rack VB 2: Unfold the hoeing machine as described in the section "Folding the hoeing machine", see page 60.

2. If you want to spray at the same time as hoeing: Enter the target rate and the band width as described in the section "Configuring the target rate", see page 61.

3. In the Field menu, call up "Work".

4. As shown in the following section "Switching parallelograms manually", activate all of the parallelograms that are required for hoeing operation and deactivate all of the parallelograms that are not required for hoeing operation.

5. If you want to spray at the same time as hoeing:
   As shown in the section "Switching sprayer part-width sections manually", see page 59, activate all of the sprayer part-width sections that are required for spraying operation and deactivate all of the sprayer part-width sections that are not required for spraying operation.

6. Move all of the activated parallelograms into working position with 

.

7. If you want to spray at the same time as hoeing:
   Switch on all of the activated sprayer part-width sections with 

.

8. If you want to work with Section Control:
   switch on Section Control with 
.

9. Drive at a constant speed.

10. If you want to spray at the same time as hoeing:
    If necessary, increase or reduce the application rate with  or  or reset it to 100 % with 

.

11. If the hoeing machine can be folded hydraulically and is mounted at the front of the tractor with front rack VB 2:
    After operation, fold the hoeing machine as described in the section "Folding the hoeing machine", see page 60.

10.2 Switching the parallelograms manually

CMS-T-00006296-C.1

The parallelograms can be activated and deactivated manually from right to left or from left to right.

The selection of the 

button affects the activated and deactivated parallelograms as follows:

- The activated and lifted parallelograms will be lowered simultaneously.
- The activated and lowered parallelograms will be lifted simultaneously.
- The deactivated parallelograms remain lifted.
- When all of the parallelograms of the implement are deactivated and lifted, all of the parallelograms of the implement will be activated and lowered simultaneously.

When the implement was switched on with 

, the selection of the  buttons affects the parallelograms as follows:

- By selecting  and , all of the lifted and deactivated parallelograms will be activated and lowered from left to right or from right to left.
- By selecting  and , all of the activated and lowered parallelograms will be lifted and deactivated from left to right or from right to left.

When the implement was switched off with 

, the selection of the  buttons affects the parallelograms as follows:

- By selecting  and , all of the lifted and deactivated parallelograms will be activated and remain lifted from left to right or from right to left.
- By selecting  and , all of the lifted and activated parallelograms will be deactivated and remain lifted from left to right or from right to left.

▶ To activate the parallelograms from left to right:

In the work menu, select .

or

To activate the parallelograms from right to left:

In the work menu, select .

or

To deactivate parallelograms from left to right:

In the work menu, select .

or

To deactivate parallelograms from right to left:

In the Work menu, select .

10.3 Switching the sprayer part-width sections manually

CMS-T-00015702-A.1

The sprayer part-width sections can be activated and deactivated manually from right to left or from left to right.

The selection of the buttons 
has the following effects on the sprayer part-width sections:

- By selecting  and , all of the deactivated sprayer part-width sections will be activated from left to right or from right to left.
- By selecting  and , all of the activated sprayer part-width sections will be deactivated from left to right or from right to left.

When the implement is switched on using 

, the selection of the 

button affects the activated and deactivated sprayer part-width sections as follows:

- All of the activated and switched-off sprayer part-width sections will be switched on simultaneously.
- All of the activated and switched-on sprayer part-width sections will be switched off simultaneously.
- All of the deactivated sprayer part-width sections remain deactivated.
- When all of the sprayer part-width sections of the implement are deactivated, all of the sprayer part-width sections of the implement will be activated and switched on simultaneously.

1. To activate the sprayer part-width sections from left to right:

   In the work menu, select .

   or

   To activate the sprayer part-width sections from right to left:

   In the work menu, select .

   or

   To deactivate the sprayer part-width sections from left to right:

   In the work menu, select .

   or

   To deactivate the sprayer part-width sections from right to left:

   In the Work menu, select .

2. To switch on activated and switched-off sprayer part-width sections on an implement switched on with 

:

   In the work menu, select 

.

   or

   To switch off activated and switched-on sprayer part-width sections on an implement switched on with 

:

   In the Work menu, select 

.

10.4 Folding the hoeing machine

CMS-T-00021078-A.1

Hoeing machines that can be hydraulically folded and are mounted at the front of the tractor with front rack VB 2 are folded and unfolded via the ISOBUS software.

1. In the Field menu, select "Front-mounted folding".
2. To unfold the hoeing machine:

   Press and hold  until the sections are completely unfolded

   or

   To fold the hoeing machine:

   Press and hold  until the sections are completely folded.



CMS-I-00015481

10.5 Configuring the target rate

CMS-T-00021079-A.1

If the hoeing machine is equipped with a band sprayer and the control for the band sprayer was activated, see page 47, the target rate and the spraying width of the band sprayer must be entered.

1. In the Field menu, select "Target rates".



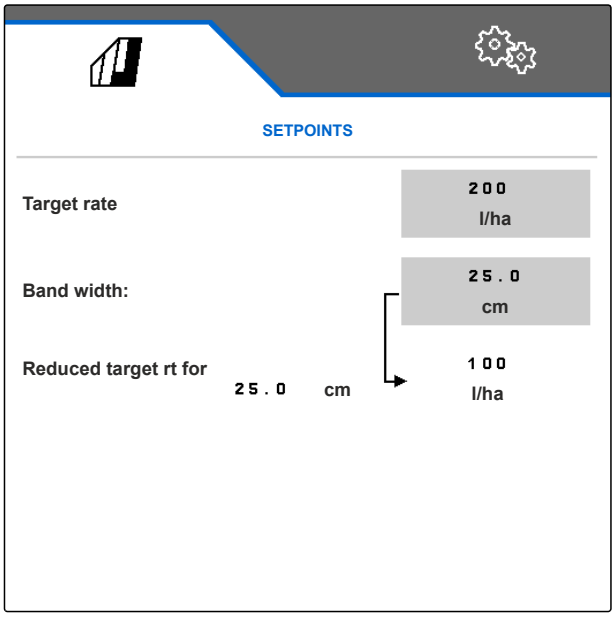
CMS-I-00015485

2. Under "Setpoint", select the desired application rate.

The value for the band width is usually 10 bis 20 cm.

3. Under "Band width", enter the spraying width of the band sprayer.

➡ The application rate calculator determines the reduced application rate required for the band width. If the band width corresponds to the row width, the reduced target rate is equal to the entered target rate.



CMS-I-00015484

Documenting work 11

CMS-T-00006640-D.1

11.1 Calling up the documentation

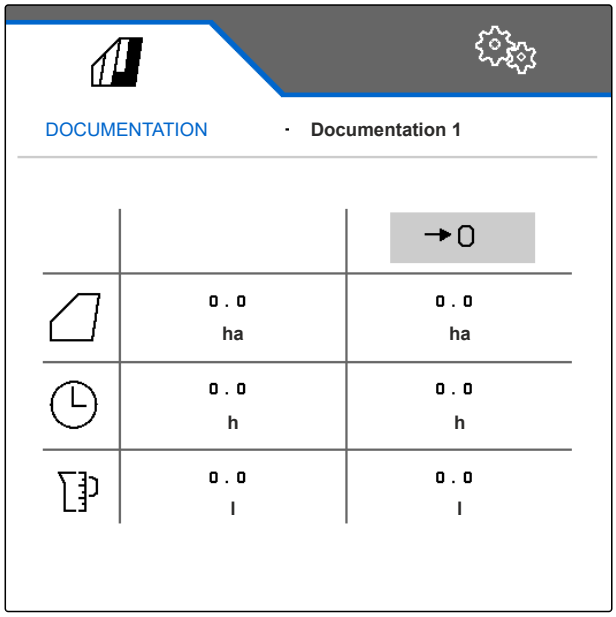
CMS-T-00006641-C.1

▶ In the Field menu, select "Documentation".

➡ A table with the values for the active documentation is shown in the menu. The left column shows the total values, and the right column shows the daily values.

NOTE

The worked area is calculated based on the total working width of the implement. Switched-off rows are not taken into account.



CMS-I-00004655

Symbol	Meaning
	Worked area
	Working time
	Applied spray liquid

11.2 Reset daily counter

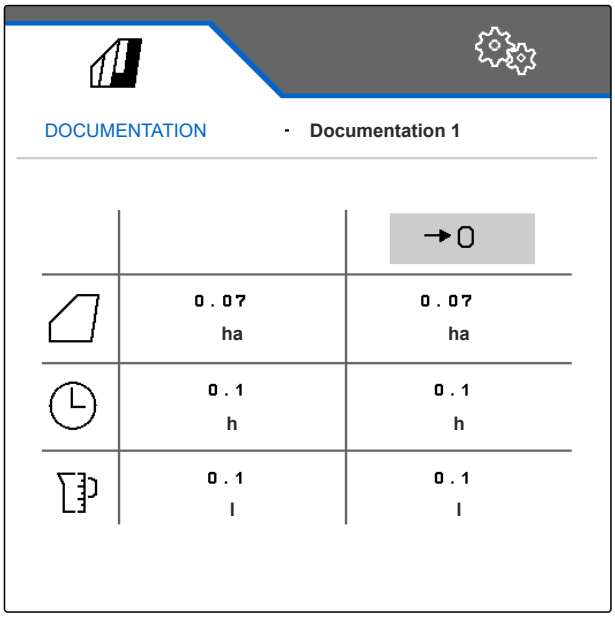
CMS-T-00015710-A.1

If you want to work on a different field, the daily counter for the documentation can be reset to 0.

NOTE

The total values for the selected documentation are maintained.

1. In the Field menu, select "Documentation".
2. select →0 .



CMS-I-00000714

11.3 Managing the documentation

CMS-T-00009445-C.1

The values for the active documentation are shown in the overview. When working with the machine, the values for the active documentation are updated.

1. To call up the documentation management:
   In the Field menu, select "Documentation".
2. Select .
3. To create a new documentation:

   Select +

   or

   To activate, rename or delete a documentation:
   Select the desired documentation from the overview and proceed in the same way as described in the section "Activating a profile", see page 34, "Renaming a profile", see page 35, or "Deleting a profile", see page 36.



CMS-I-00006107

Calling up information

12

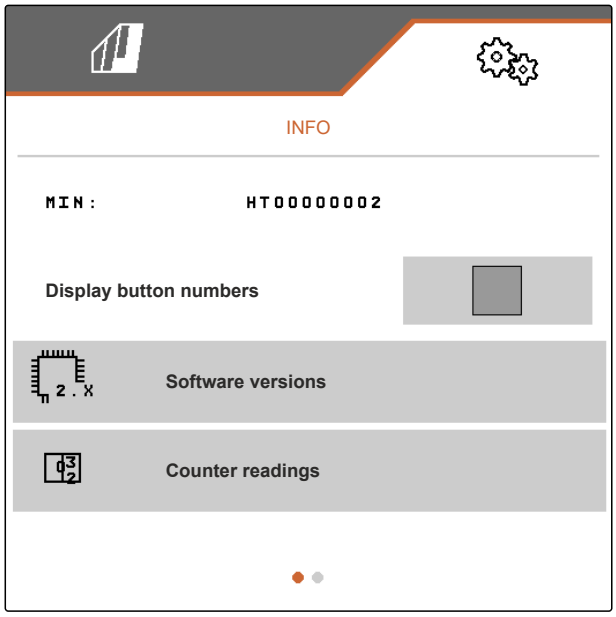
CMS-T-00006324-D.1

12.1 Showing the button numbers

CMS-T-00006437-C.1

The buttons on the button bar can be numbered. When talking to service technicians on the phone, it is easier to make clear references to the buttons.

1. In the "Settings" menu, select "Service".
2. Activate "Show button numbers".



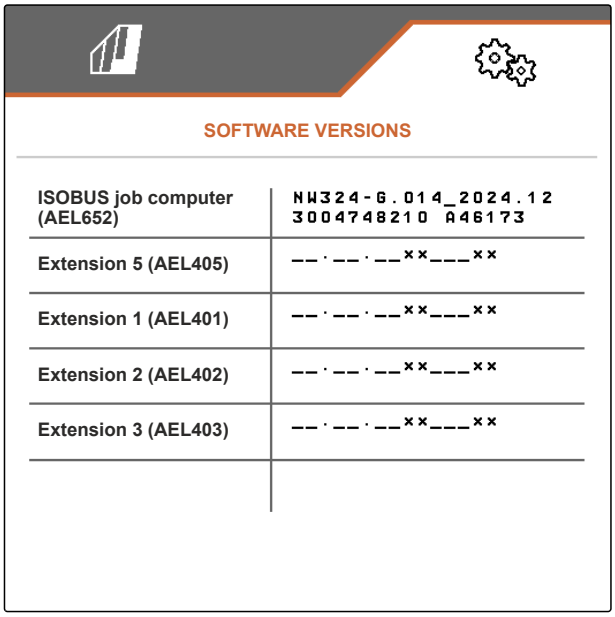
CMS-I-00004622

12.2 Displaying the software versions

CMS-T-00006436-D.1

The job computers are listed in the left column of the table. In the right column, the software versions installed on the job computers are shown.

- In the "Settings" menu, select "Service" > "Software versions".



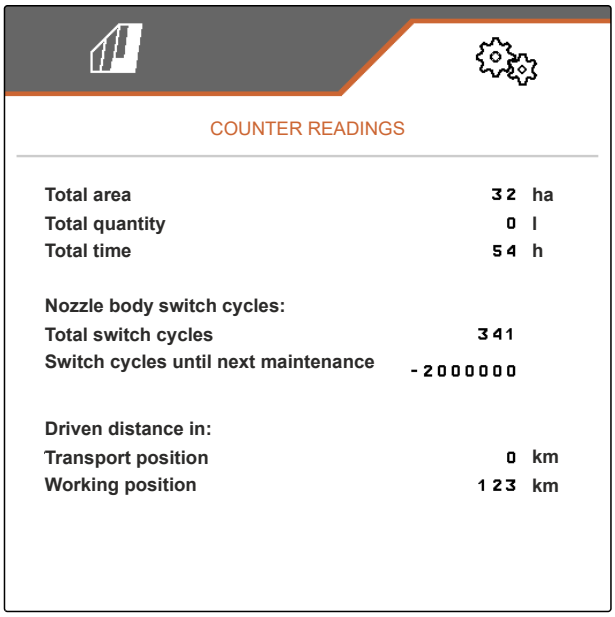
CMS-I-00004623

12.3 Calling up the counter readings for the implement

CMS-T-00006434-C.1

The current total counter readings for the implement can be called up.

- In the "Settings" menu, select "Service" > "Counter readings".



CMS-I-00004624

12.4 Calling up the error memory

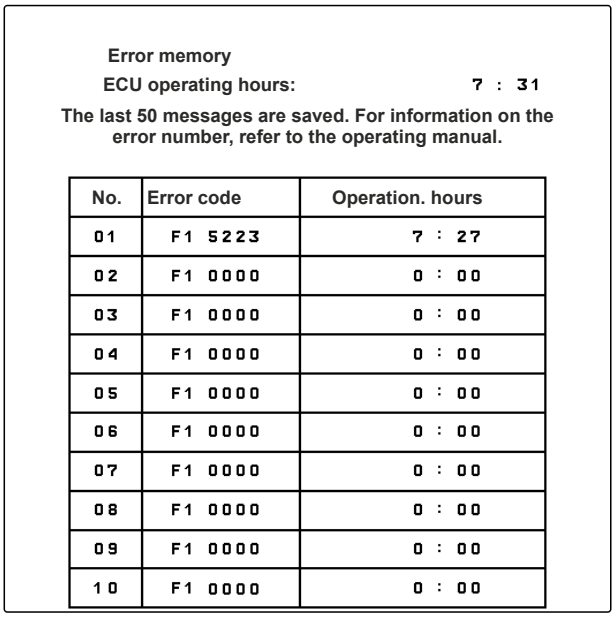
CMS-T-00006435-C.1

The error messages are shown in the error memory.

The error messages are numbered. Beside the error code, the operating hour at which the error occurred is shown.

The error memory can be cleared.

1. In the "Settings" menu, select "Service".
2. Scroll to the second page of the menu with .
3. Select "Call up the error memory".
4. To clear the error memory:
   select .



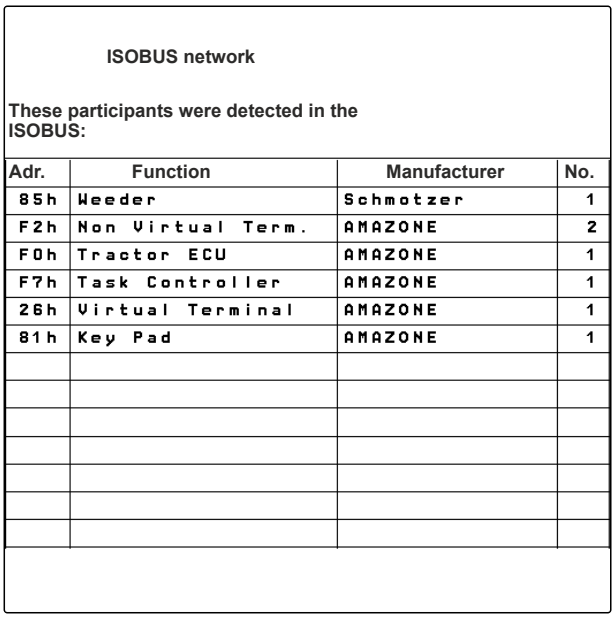
CMS-I-00004625

12.5 Displaying the ISOBUS network

CMS-T-00006433-C.1

All of the participants in the ISOBUS network can be determined and displayed.

1. In the "Settings" menu, select "Service".
2. Scroll to the second page of the menu with .
3. Select "ISOBUS network".
4. To update the list of participants:
   select .



CMS-I-00004626

Troubleshooting 13

CMS-T-00006567-C.1

Error code	Errors	Cause	Solution
F15006	After exiting the diagnosis mode, all automatic functions are reactivated! Move away from the implement!	Exiting the diagnosis mode.	▶ None required.
F15040	The source selected for the forward speed is not available! Select an existing source!	The previously used source for the speed signal is no longer available.	▶ Select a different available source for the speed signal.
F15086	Section Control cannot be activated!	The preconditions for activating Section Control have not been met.	▶ Check if the implement is activated. ▶ Check if Section Control is activated on the terminal. ▶ Check if working position sensor works properly. ▶ Check if the GPS signal is available.
F15093	Supply voltage not reached	Pre-tension is too low.	▶ Check battery voltage of the tractor. ▶ Check wiring to the implement.
F15156	Hoe set working position sensor has failed!	No signal available from the working position sensor for the working position on the hoeing machine.	▶ Check whether the signal light on the working position sensor is lit when the implement is folded. ▶ Check the wiring harness on the working position sensor. ▶ Check the working position sensor.
F15157	Hoeing set transport position sensor has failed!	No signal available from the transport position sensor for the transport position on the hoeing machine.	▶ Check whether the signal light on the transport position sensor is lit when the implement is folded. ▶ Check the wiring harness on the transport position sensor. ▶ Check the transport position sensor.

Error code	Errors	Cause	Solution
F15191	Check the working position sensor!	No signal available from the working position sensor on the sliding frame.	▶ Check whether the previously selected signal source is available. ▶ Check the wiring harness on the working position sensor on the sliding frame. ▶ Check the working position sensor on the sliding frame.
F15220	Job computer extension unit 1 has failed!	Communication with the extension computer 1 has been interrupted.	▶ Check the wiring harness to extension computer 1. ▶ Check extension computer 1. ▶ Restart the implement.
F15221	Job computer extension unit 2 has failed!	Communication with the extension computer 2 has been interrupted.	▶ Check the wiring harness to extension computer 2. ▶ Check extension computer 2. ▶ Restart the implement.
F15222	Job computer extension unit 3 has failed!	Communication with the extension computer 3 has been interrupted.	▶ Check the wiring harness to extension computer 3. ▶ Check extension computer 3. ▶ Restart the implement.
F15223	Implement is not completely folded. Check the condition of the implement.	The implement has not reached the transport position.	▶ Check whether the implement is completely folded. ▶ Check whether the transport position sensor switches. If this is the case, the LED is lit.
F15224	Road travel detected, implement is automatically deactivated.	Activated implement is moving faster than 20 km/h.	▶ Drive slower.
F15225	Working widths of the booms are not identical.	The working widths of the Section Control units of the hoeing machine and the band sprayer are not equal.	▶ Set the working widths for the Section Control units and the hoeing machine equally.
F15226	Job computer extension unit 4 has failed!	Communication with the extension computer 4 has been interrupted.	▶ Check the wiring harness to extension computer 4. ▶ Check extension computer 4. ▶ Restart the implement.
F15227	Job computer extension unit 5 has failed!	Communication with the extension computer 5 has been interrupted.	▶ Check the wiring harness to extension computer 5. ▶ Check extension computer 5. ▶ Restart the implement.

Error code	Errors	Cause	Solution
F15229	Band sprayer job computer failure!	Communication to the job computer for the band sprayer is interrupted.	▶ Check the wiring harness to the job computer for the band sprayer. ▶ Check the job computer for the band sprayer. ▶ Restart the implement.
F15230	Oil pressure sensor for FT-P pump has failed!	No signal from the sensor for the oil pressure on the FT-P pump.	▶ Check the wiring harness on the oil pressure sensor. ▶ Check the oil pressure sensor.

Appendix 14

CMS-T-00006438-C.1

14.1 Other applicable documents

CMS-T-00006441-C.1

- Operating manual of the hoeing machine
- Operating manual of the control terminal
- Operating manual of the sliding frame
- Operating manual of the front tank

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