DÜRKOPP ADLER

550-D800

Operating Instructions

IMPORTANT
READ CAREFULLY BEFORE USE
KEEP FOR FUTURE REFERENCE

1 About these instructions

These instructions have been prepared with utmost care. They contain information and notes intended to ensure long-term and reliable operation.

Should you notice any discrepancies or if you have improvement requests, then we would be glad to receive your feedback through **Customer Service** (📖 *p. 233*).

Consider these instructions as part of the product and keep it easily accessible.

1.1 For whom are these instructions intended?

These instructions are intended for:

- Operators:
  This group is familiar with the machine and has access to the instructions. Specifically, chapter **Operation** (📖 *p. 17*) is important for the operators.
- Specialists:
  This group has the appropriate technical training for performing maintenance or repairing malfunctions. Specifically, the chapter Setup (📖 *p. 221*) is important for specialists.

Service Instructions are supplied separately.

With regard to minimum qualification and other requirements to be met by personnel, please also follow the chapter **Safety** (📖 *p. 11*).

1.2 Representation conventions – symbols and characters

Various information in these instructions is represented or highlighted by the following characters in order to facilitate easy and quick understanding:

Proper setting

Specifies proper setting.

Disturbances

Specifies the disturbances that can occur from an incorrect adjustment.

Cover

Specifies which covers must be disassembled in order to access the components to be set.

Steps to be performed when operating the machine (sewing and equipping)

Steps to be performed for service, maintenance, and installation

Steps to be performed via the software control panel

The individual steps are numbered:

1. First step
2. Second step

… The steps must always be followed in the specified order.

- Lists are marked by bullet points.

Result of performing an operation

Change to the machine or on the display/control panel.

Important

Special attention must be paid to this point when performing a step.

Information

Additional information, e.g. on alternative operating options.

Order

Specifies the work to be performed before or after an adjustment.

References

🕮 Reference to another section in these instructions.

Safety Important warnings for the user of the machine are specifically marked. Since safety is of particular importance, hazard symbols, levels of danger and their signal words are described separately in the chapter **Safety** (🕮 *p. 11*).

Location information If no other clear location information is used in a figure, indications of **right** or **left** are always from the user's point of view.

1.3 Other documents

The machine includes components from other manufacturers. Each manufacturer has performed a hazard assessment for these purchased parts and confirmed their design compliance with applicable European and national regulations. The proper use of the built-in components is described in the corresponding manufacturer's instructions.

1.4 Liability

All information and notes in these instructions have been compiled in accordance with the latest technology and the applicable standards and regulations.

Dürkopp Adler cannot be held liable for any damage resulting from:

- Breakage and transport damages
- Failure to observe these instructions
- Improper use
- Unauthorized modifications to the machine
- Use of untrained personnel
- Use of unapproved parts

Transport

Dürkopp Adler cannot be held liable for breakage and transport damages. Inspect the delivery immediately upon receiving it. Report any damage to the last transport manager. This also applies if the packaging is not damaged.

Leave machines, equipment and packaging material in the condition in which they were found when the damage was discovered. This will ensure any claims against the transport company.

Report all other complaints to Dürkopp Adler immediately after receiving the product.

2 Safety

This chapter contains basic information for your safety. Read the instructions carefully before setting up or operating the machine. Be sure to follow the information in the safety instructions. Failure to do so can result in serious injury and property damage.

2.1 Basic safety instructions

The machine may only be used as described in these instructions.

These instructions must be available at the machine's location at all times.

Work on live components and equipment is prohibited. Exceptions are defined in the DIN VDE 0105.

For the following work, switch off the machine at the main switch or disconnect the power plug:

- Replacing the needle or other sewing tools
- Leaving the workstation
- Performing maintenance work and repairs
- Threading

Missing or faulty parts could impair safety and damage the machine.
Only use original parts from the manufacturer.

Transport

Use a lifting carriage or stacker to transport the machine. Raise the machine max. 20 mm and secure it to prevent it from slipping off.

Setup

The connecting cable must have a power plug approved in the relevant country. The power plug may only be assembled to the power cable by qualified specialists.

Obligations of the operator

Follow the country-specific safety and accident prevention regulations and the legal regulations concerning industrial safety and the protection of the environment.

All the warnings and safety signs on the machine must always be in legible condition. Do not remove!
Missing or damaged warnings and safety signs must be replaced immediately.

Requirements to be met by the personnel

Only qualified specialists may be used for:

- Setting up the machine/putting the machine into operation
- Performing maintenance work and repairs
- Performing work on electrical equipment

Only authorized persons may work on the machine and must first have understood these instructions.

Operation

Check the machine during operating for any externally visible damage. Stop working if you notice any changes to the machine. Report any changes to your supervisor. Do not use a damaged machine any further.

Safety equipment

Safety equipment should not be disassembled or deactivated. If it is essential to disassemble or deactivate safety equipment for a repair operation, it must be assembled and put back into operation immediately afterward.

2.2 Signal words and symbols used in warnings

Warnings in the text are distinguished by color bars. The color scheme is based on the severity of the danger. Signal words indicate the severity of the danger.

Signal words

Signal words and the hazard they describe:

Signal word	Meaning
DANGER	(with hazard symbol) If ignored, fatal or serious injury will result
WARNING	(with hazard symbol) If ignored, fatal or serious injury can result
CAUTION	(with hazard symbol) If ignored, moderate or minor injury can result
CAUTION	(with hazard symbol) If ignored, environmental damage can result
NOTICE	(without hazard symbol) If ignored, property damage can result

Symbols

The following symbols indicate the type of danger to personnel:

Symbol	Type of danger
	General
	Electric shock

Symbol	Type of danger
	Puncture
	Crushing
	Environmental damage

Examples Examples of the layout of warnings in the text:

DANGER

Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

↳ This is what a warning looks like for a hazard that will result in serious injury or even death if ignored.

WARNING

Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

↳ This is what a warning looks like for a hazard that could result in serious or even fatal injury if ignored.

CAUTION

Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

↳ This is what a warning looks like for a hazard that could result in moderate or minor injury if the warning is ignored.

CAUTION

Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

↳ This is what a warning looks like for a hazard that could result in environmental damage if ignored.

NOTICE

Type and source of danger!

Consequences of non-compliance.

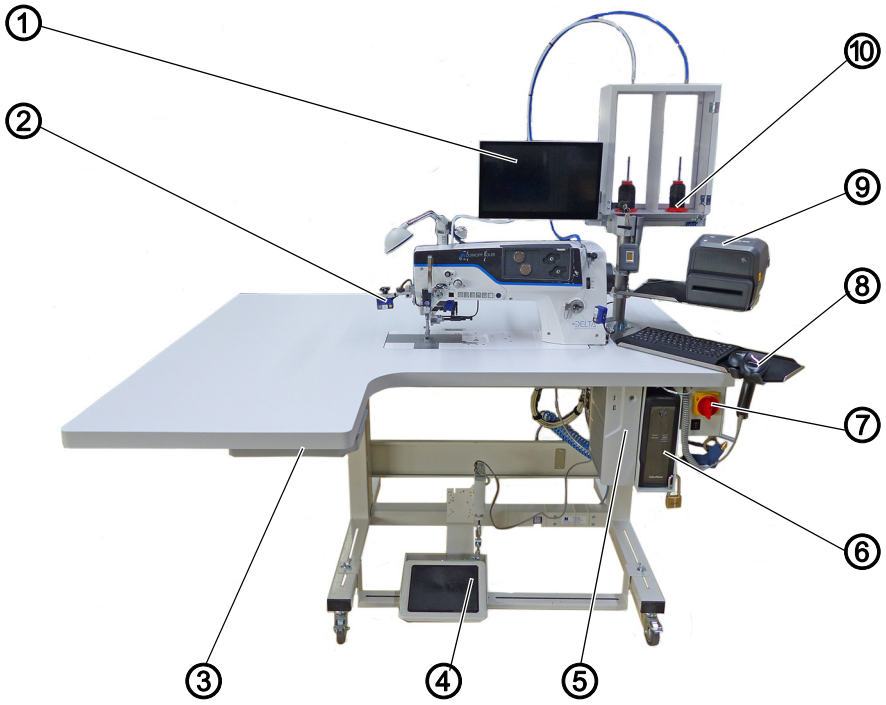
Measures for avoiding the danger.

↳ This is what a warning looks like for a hazard that could result in property damage if ignored.

3 Machine description

3.1 Components of the machine

Fig. 1: Components of the machine



(1) - Control panel
(2) - End label scanner (optional)
(3) - Tray
(4) - Pedal
(5) - Control
(6) - Uninterrupted power supply
(7) - Main switch
(8) - Hand scanner
(9) - End label printer
(10) - Reel stand

3.2 Proper use

WARNING

Risk of injury from live, moving and cutting parts as well as from sharp parts!

Improper use can result in electric shock, crushing, cutting and punctures.

Follow all instructions provided.

NOTICE

Non-observance will lead to property damage!

Improper use can result in material damage at the machine.

Follow all instructions provided.

The machine may only be used with sewing material that satisfies the requirements of the specific application at hand.

The machine is intended only for use with dry sewing material. The sewing material must not contain any hard objects.

The needle thicknesses permissible for the machine are listed in the **Technical data** (📖 *p. 261*) chapter.

The seam must be completed with a thread that satisfies the requirements of the specific application at hand.

The machine is intended for industrial use.

The machine may only be set up and operated in dry conditions on well-maintained premises. If the machine is operated on premises that are not dry and well-maintained, then further measures may be required which must be compatible with DIN EN 60204-31.

Only authorized persons may work on the machine.

Dürkopp Adler cannot be held liable for damages resulting from improper use.

3.3 Declaration of Conformity

The machine complies with European regulations ensuring health, safety, and environmental protection as specified in the declaration of conformity or in the declaration of incorporation.

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4 Operation

The operating sequence consists of several different steps. Fault-free operation is necessary in order to achieve a good sewing result.

4.1 Preparing the machine for operation

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

If possible, make all preparations only when the machine is switched off.

Complete the following steps in preparation of sewing before starting to work:

- Scan codes (📖 *p. 18*)
- Log in user (📖 *p. 75*)
- Insert or change the needle(📖 *p. 22*)
- Feed the needle thread through the hose guide (📖 *p. 24*)
- Thread the needle thread (📖 *p. 26*)
- Thread the hook thread (📖 *p. 34*)
- Edit the seam record set if necessary (📖 *p. 94*)

4.1.1 Switching on the machine

WARNING

Risk of injury from moving, cutting and sharp parts!

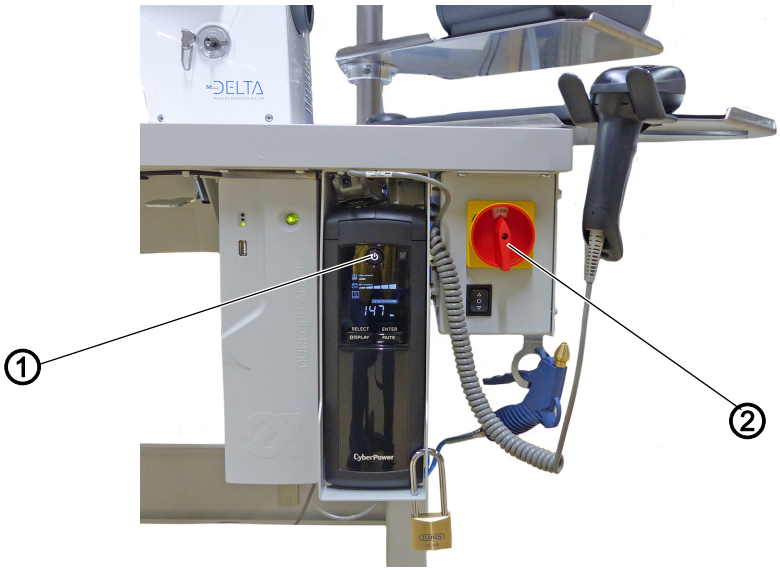
Crushing, cutting and punctures are possible.

Do not sew unless the machine is fully assembled and includes all safety devices.

Information

When switching on the machine for the first time, proceed as described in the **Setup** chapter (📖 *p. 221*).

Fig. 2: Switching on the machine



(1) - Switch *(2) - Main switch*

To switch on the machine:

1. Set the main switch (2) to position **1** (On).
2. Press the switch (1) to switch on the uninterrupted power supply (UPS).

↳ The PC boots up, and the software launches. The machine is checked and initialized.

Information

It may also be necessary to switch on the control and the printer, which would be indicated by the machine on the control panel.

4.1.2 Scanning barcodes

To prepare the machine for sewing, the following barcodes need to be scanned:

- Barcode of the needle thread reel (📖 *p. 51*)
- Barcode of the hook thread reel (📖 *p. 51*)
- Barcode of the bobbin

These three barcodes are requested / scanned automatically as soon as the machine is switched on.

Fig. 3: Scanning barcodes (1)

To scan the barcodes:

1. Switch on the machine (📖 *p. 17*).
2. Use the hand scanner or the thread barcode scanner to scan the barcode of the needle thread reel.
3. Use the hand scanner or the hook thread barcode scanner to scan the barcode of the hook thread reel.

Information

If barcode scanners have been assembled for the needle thread and the hook thread, the barcodes will be scanned automatically.

↳ The display switches to:

Fig. 4: Scanning barcodes (2)

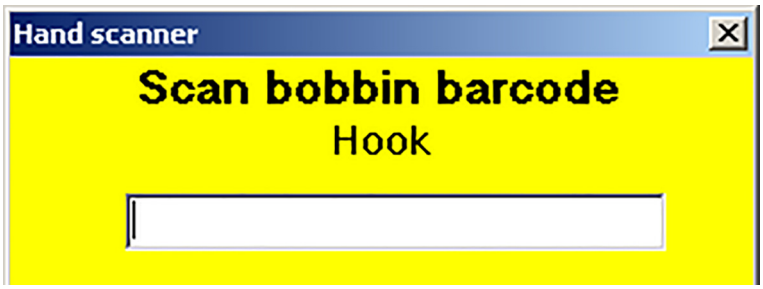
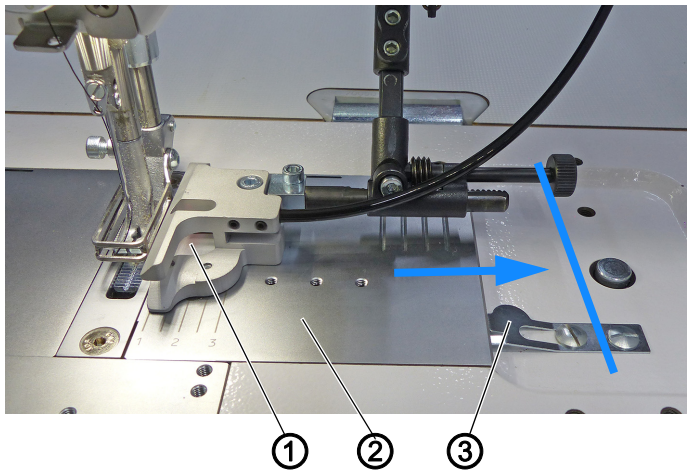


Fig. 5: Scanning barcodes (3)



(1) - Edge guide
(2) - Hook cover
(3) - Locking mechanism
(4) - Proximity switch (housed in the hook cover)

4. Fold up the edge guide (1).
5. Push the locking mechanism (3) down and keep it pressed.
6. The hook cover (2) is now unlocked.

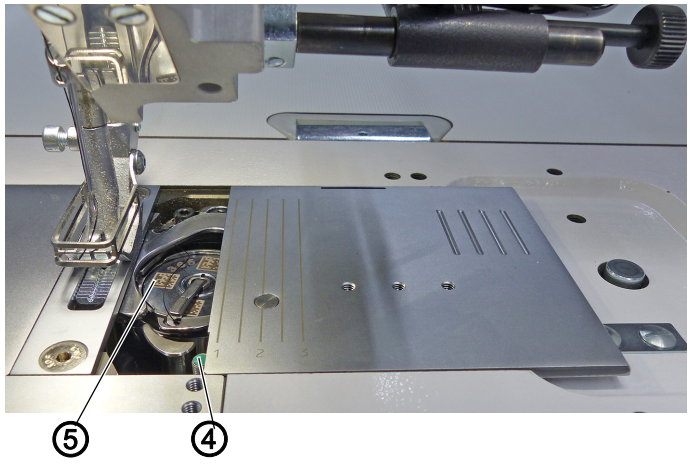
Information

Do NOT slide the hook cover (2) past the proximity switch (4). Otherwise, the barcode / bobbin number will be requested a second time as soon as the hook cover (2) is no longer positioned above the proximity switch (4).

7. Do not slide the hook cover (2) any further than up to the proximity switch (4).

↳ The barcode on the bobbin / the bobbin number is visible.

Fig. 6: Scanning barcodes (4)



(4) - Proximity switch
(5) - Bobbin

↳ Once the bobbin (5) is positioned properly inside the hook, the barcode will be captured automatically. Once the barcode has been scanned successfully, the corresponding prompt on the control panel will disappear.

8. Push the hook cover (2) to the left as far as it will go.
9. Fold the edge guide (1) back down.

↳ The machine is ready for operation.
You can now put the machine into operation for the first time (📖 *p. 17*) or log in right away (📖 *p. 75*).

Important

Sewing will not be released until the system could be booted and the scanning of all barcodes could be completed without error. Otherwise, an error message will be displayed (📖 *p. 233*).

4.1.3 Inserting or changing the needle

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Do not insert or change the needle unless the service stop has been activated.

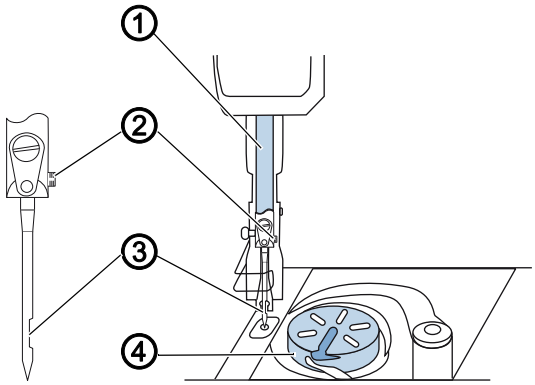
NOTICE

Property damage may occur!

There is a risk of machine damage, needle breakage or thread breaking if the distance between needle and hook tip is incorrect.

Set the distance to the hook tip after inserting a needle with a different strength.

Fig. 7: Inserting or changing the needle



(1) - Needle bar
(2) - Screw
(3) - Groove
(4) - Hook

To change the needle:

1. Turn the handwheel until the needle bar (1) reaches the upper end position.
2. Loosen the screw (2).
3. Pull the needle out towards the bottom.
4. Insert the new needle into the hole in the needle bar (1) until it reaches the end stop.

Important

Align the needle in such a way that the groove (3) faces the hook (4).

5. Tighten the screw (2).

Order

Always adjust the clearance between the hook and the needle after changing to a different needle strength (📖 *Service Instructions*).

Disturbance

An incorrect hook side clearance can cause the following disturbances:

- Changing to a thinner needle:
  - Skip stitches
  - Thread damage
- Changing to a thicker needle:
  - Damage to the hook tip
  - Damage to the needle

4.1.4 Feeding needle and hook thread

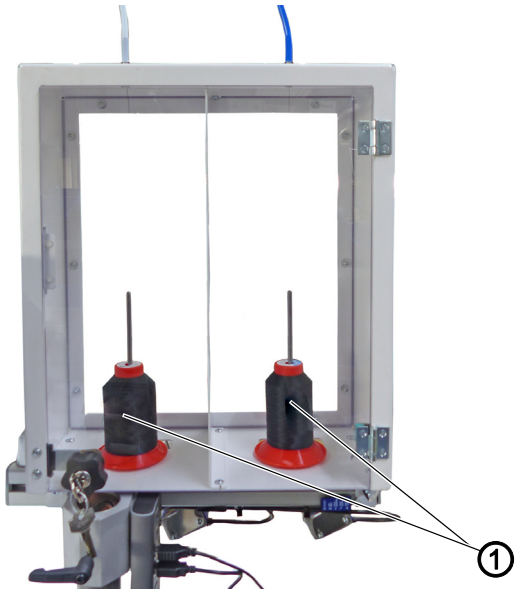
WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

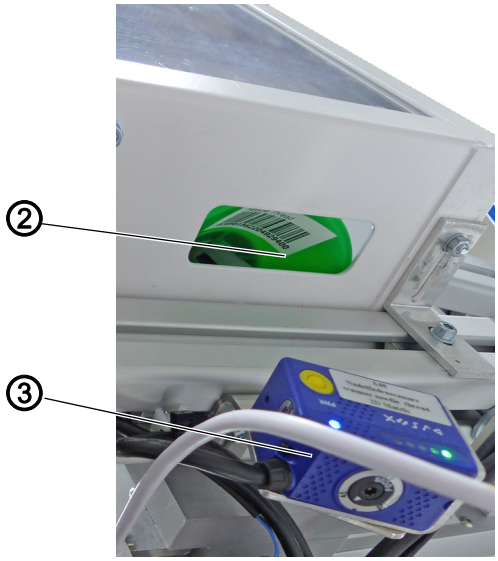
Only feed needle and hook thread with the machine switched off.

Fig. 8: Feeding needle and hook thread (1)



(1) - Thread reel

Fig. 9: Feeding needle and hook thread (2)



(2) - Needle/hook thread barcode

(3) - Barcode scanner (for the barcodes of needle and hook thread)

Needle and hook thread are each fed through the hose guide from the reel stand to the tensioning plate (needle thread) / to the winder (hook thread).

To feed the needle/hook thread through the hose guide:

1. Fit the thread reel (1) on a thread reel holder.
   Make sure that the needle/hook thread barcode (2) can be scanned by the barcode scanner (3).

Information

If the needle/hook thread barcode (2) is not detected by the barcode scanner (3), a message will appear on the control panel.
If this happens, align the thread reel (1) anew and scan the needle/hook thread barcode (2) again.

Fig. 10: Feeding needle and hook thread (4)

(4) - Thread advancing device *(5) - Slot*

2. Feed the wire of the thread advancing device (4) through the slot (5) and up to the reel stand.
3. Tie on the needle/hook thread and pull it through the hose guide manually.

You can now thread the needle/hook thread (📖 *p. 26* and 📖 *p. 34*) and set the thread tension (📖 *p. 36*).

4.1.5 Threading the needle thread

WARNING

Risk of injury from needle tip and moving parts!

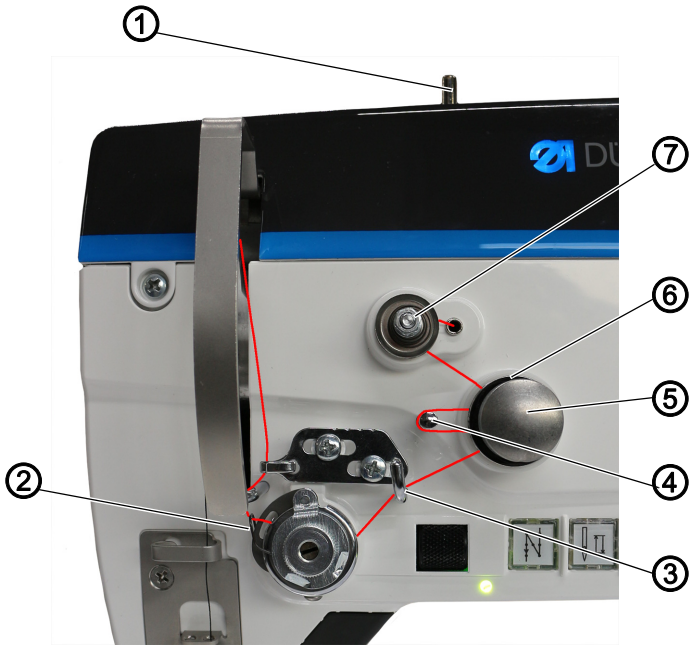
Puncture, cutting and crushing possible.

Turn off the machine before threading the thread.

Information

The needle thread cannot be threaded at the tensioning plate until it has been fed correctly through the hose guide (📖 *p. 24*).

Fig. 11: Threading the needle thread (1)

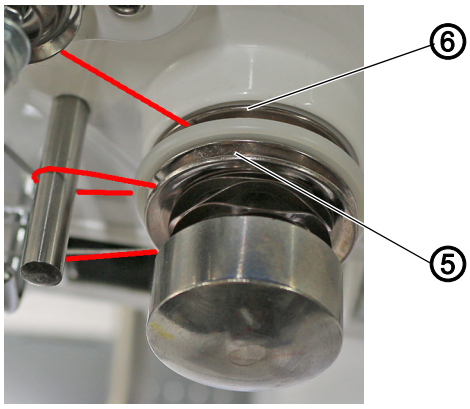


(1) - Tube
(2) - Thread tensioning spring
(3) - Hook
(4) - Pin
(5) - front tension
(6) - rear tension
(7) - Pretension

To thread the needle thread:

1. Feed the needle thread as described above (📖 *p. 24*).
2. Feed the thread counterclockwise from the tube (1) around the pretension (7).
3. Feed the thread clockwise through the rear tension (6).
4. Feed the thread clockwise around the pin (4) and keep feeding it clockwise through the front tension (5).

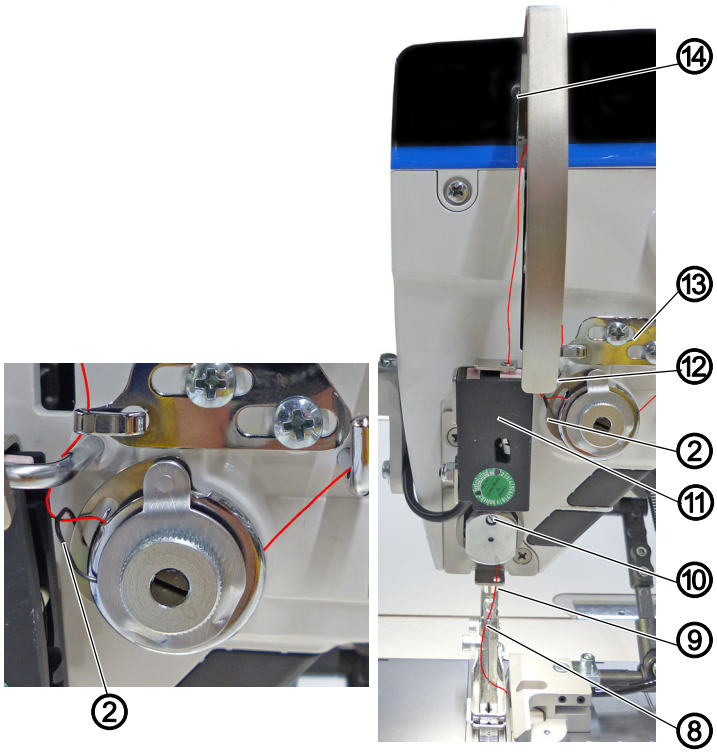
Fig. 12: Threading the needle thread (2)



(5) - front tension
(6) - rear tension

5. Feed the thread over the hook (3) before feeding it clockwise through the thread tensioning spring (2) from below.

Fig. 13: Threading the needle thread (3)



(2) - Thread tensioning spring
(8) - Thread guide
(9) - Lower thread guide
(10) - Upper thread guide
(11) - BTSR sensor
(12) - Pin
(13) - Needle thread regulator
(14) - Thread lever (covered)

6. Feed the thread around the pin (12) from left to right and then from top to bottom through the long hole of the needle thread regulator (13).
7. Insert the thread from the right to the left through the lower guide of the thread lever (14).
8. Insert the thread through the BTSR sensor.
9. Insert the thread through the upper thread guide (10).

10. Insert the thread through the hole in the lower thread guide (9).

Information

For machines with thread clamp (optional)

11. Insert the thread through the right hole of the guide above the thread clamp.
12. Insert the thread through the right hole of the guide below the thread clamp.

Fig. 14: Thread clamp

13. Insert the thread into the thread clamp from the right so that the thread is held in place inside the hook of the clamp.

The thread is supposed to run through the clamp almost without touching it and in such a way that it only makes contact with the guides above and below the thread clamp.

14. Insert the thread through the thread guide (8) on the needle bar block.
15. Insert the thread through the needle eye (towards the groove) in such a way that the loose thread end faces the hook.
16. Pull the thread through the needle eye until the loose thread end has a length of approx. 4 cm with the thread lever (14) at the highest position.

Important

Check the thread length.
If the loose thread end is too long, the thread may be caught by the hook and cause a disturbance. If the loose thread end is too short, the machine cannot start sewing.

4.1.6 Winding the hook thread

WARNING

Risk of injury from needle tip and moving parts!

Puncture, cutting and crushing possible.

Turn off the machine before threading the thread.

NOTICE

Property damage may occur!

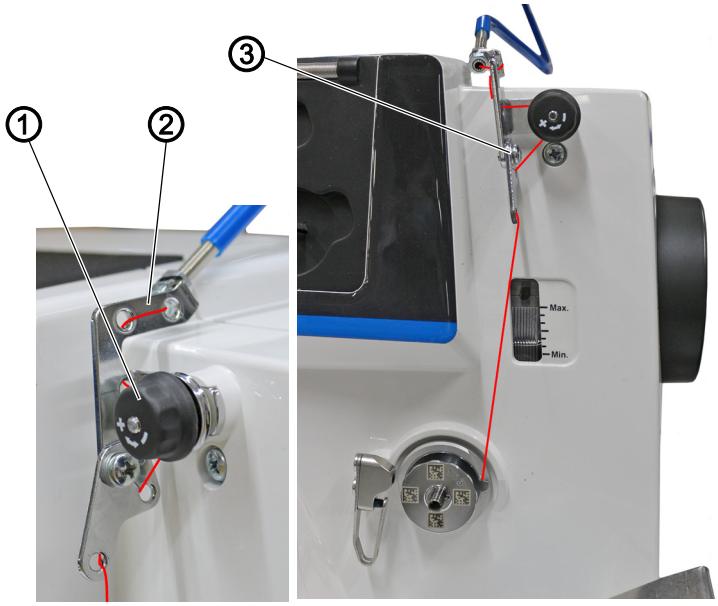
Damage to the machine.

Use only bobbins that are suitable for this type of machine. Do not fill a bobbin with a new hook thread unless it is empty. Never use the winder without a bobbin.

Information

The hook thread can be wound on when it has been fed correctly through the hose guide (📖 *p. 24*).

Fig. 15: Winding the hook thread (1)



(1) - Pretension
(2) - Thread guide
(3) - Thread guide

To wind the hook thread:

1. Feed the hook thread as described above (p. 24).
2. Insert the thread in a wavelike manner through the first 2 holes of the thread guide (2): from left to right through the first hole and from right to left through the second hole.
3. Feed the thread through the third hole of the thread guide (2) from left to right before feeding it clockwise around the pretension (1).
4. Feed the thread to the left through the thread guide (3).
5. Feed the thread from the left to the right through the bottommost hole of the thread guide (3).

Fig. 16: Winding the hook thread (2)

(4) - Winder lever
(5) - Screw
(6) - Bobbin shaft
(7) - Knife
(8) - Winder

6. Guide the thread to the winder (8).
7. Clamp the thread behind the knife (7) and tear off the loose end behind it.
8. Fit the bobbin on the bobbin shaft (6).
9. Turn the bobbin on the bobbin shaft (6) until the drive dog spring audibly clicks into place in the slot of the bobbin.
10. Press the winder lever (4) to the right against the bobbin - adjust the screw (5) depending on the desired fill level of the bobbin:
    Screw loosened far - small filling quantity
    Screw loosened slightly - large filling quantity

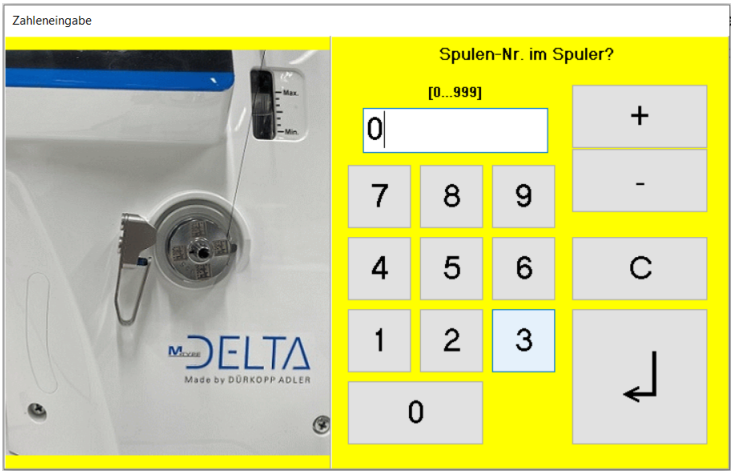
↳ The winding process starts and ends automatically when the bobbin is full. The winder lever (4) returns to its lower position.

Information

The hook thread is normally wound on when sewing is in progress. However, you can also wind on the hook thread without sewing, e. g. if you require a full bobbin in order to start sewing. For this purpose, use Bobbin Wind mode in Manual mode.

11. Pull off the full bobbin.
12. Tear off the thread behind the knife (7).
13. Cut off the surplus left after winding on the thread.
14. Insert the full bobbin into the hook (📖 *p. 32*).
15. If a scanner has been assembled, the barcode of the bobbin will be scanned automatically - without a scanner, the following window will be displayed:

Fig. 17: Winding the hook thread (4)



16. Enter the bobbin number.

Information

Verify that the bobbin number (6) you entered is correct before you press the ↵ button.

17. Confirm with ↵.

4.1.7 Inserting/changing the bobbin

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only insert or change the bobbin with the machine switched off.

NOTICE

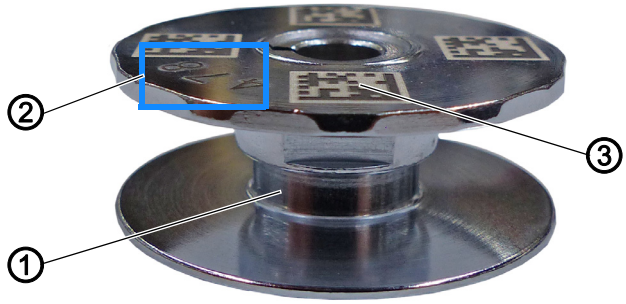
Property damage may occur!

Damage to the machine.

Insert the bobbin into the hook in such a way that the supply groove is pointing down and the rotational direction for pulling off the thread is counterclockwise.

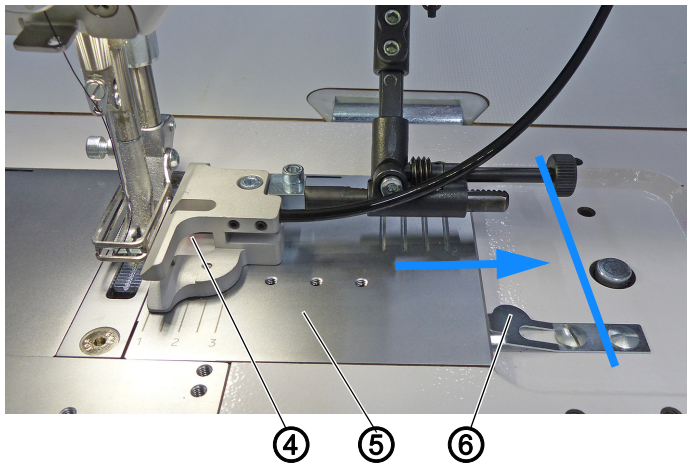
Use compressed air to remove any sewing dust from the area around the bobbin case and the light barrier every time you change the bobbin.

Fig. 18: Inserting/changing the bobbin (1)



(1) - Supply groove
(2) - Bobbin number
(3) - Bobbin barcode

Fig. 19: Inserting/changing the bobbin (2)



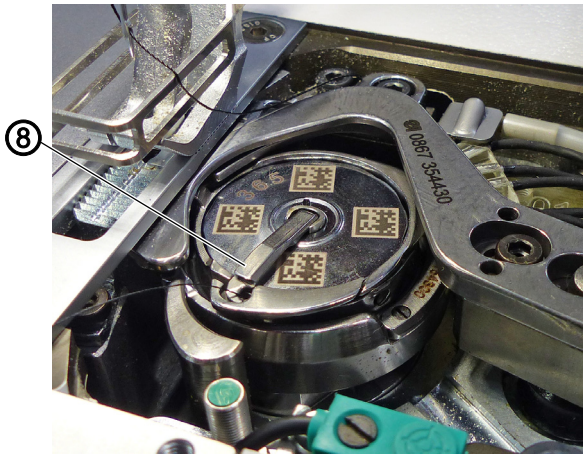
(4) - Edge guide
(5) - Hook cover
(6) - Locking mechanism
(7) - Proximity switch (housed in the hook cover)

To insert or change the bobbin housed in the hook:

1. Fold up the edge guide (4).
2. Push the locking mechanism (6) down and keep it pressed.
3. Slide the hook cover (5) to the right.

↳ The hook cover (5) must be pushed passed the proximity switch (7) as it will otherwise not be possible to remove the bobbin from the hook and to re-insert it.
The hook cover (5) is now unlocked.

Fig. 20: Inserting/changing the bobbin (3)



(8) - Bobbin case retainer

4. Open the bobbin case retainer (8) and, if applicable, remove the empty bobbin.
5. Clean the sensor of the remaining thread monitor or of the skip stitch detection using compressed air (📖 *p. 47*).

6. Insert a full bobbin into the hook in such a way that the supply groove (1) is pointing down and the rotational direction for pulling off the thread is counterclockwise.

Important

Insert the bobbin such that the bobbin number (7)/the bobbin barcode (6) is facing up.
The basin for the bobbin spring is found on the bottom.

7. Close the bobbin case retainer (8).
8. If a barcode scanner for the bobbin barcode (3) has been assembled, pull the bobbin by the hook into a position where the bobbin barcode (3) can be scanned.
9. Enter the bobbin number (2) on the control panel or scan the bobbin barcode (3).
10. Slide the hook cover (4) back to the left.

Information

The remaining thread monitor is not active unless it has been activated in the machine configuration: *Check - DacFlex Commander*. Refer to the **Operating Instructions D867**, chapter **Programming**, for detailed instructions.

4.1.8 Threading the hook thread

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only thread the hook thread with the machine switched off.

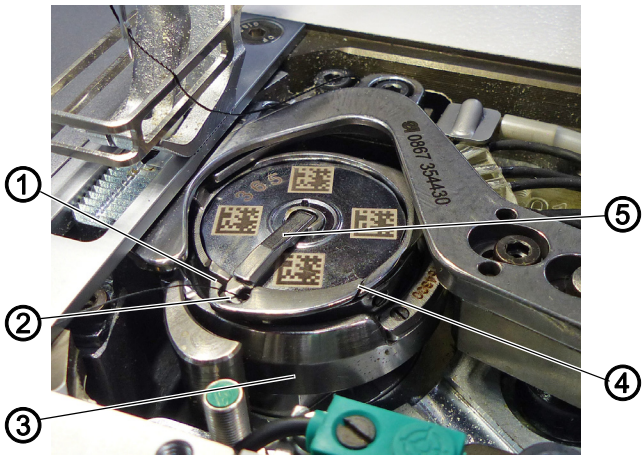
NOTICE

Property damage may occur!

Damage and malfunction of the sensor.

Every time you change the bobbin, use compressed air to remove sewing dust from the area around the bobbin case and the sensor of the remaining thread monitor.

Fig. 21: Threading the hook thread (1)

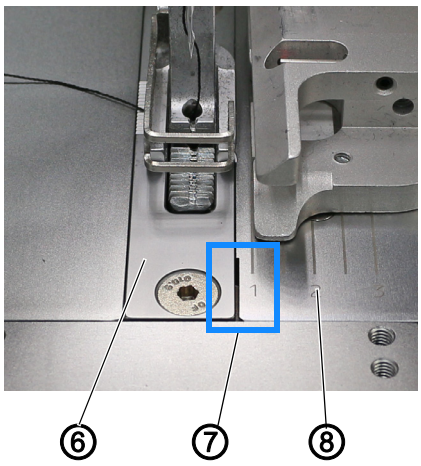


(1) - Slot
(2) - Guide
(3) - Spring
(4) - Slot
(5) - Bobbin case retainer

To thread the hook thread:

1. Guide the hook thread through the slot (4) before pulling it under the spring (3).
2. Pull the hook thread through the slot (1) and pull it approx. 3 cm further.
3. Align the bobbin barcode if a bobbin barcode scanner has been assembled.
4. Pull the hook thread through the guide (2) of the bobbin case retainer (5).

Fig. 22: Threading the hook thread (2)



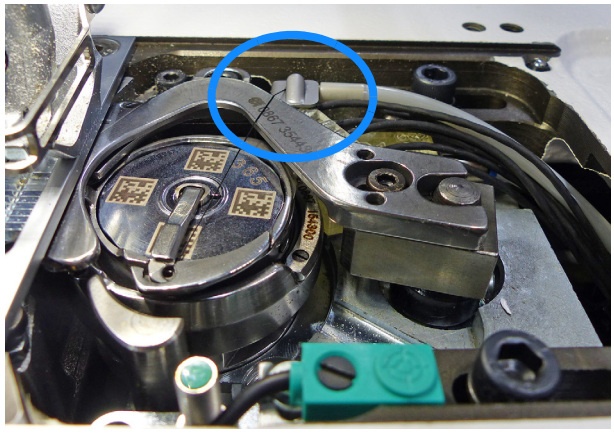
(6) - Throat plate
(7) - Cutout
(8) - Hook cover

5. Feed the hook thread through the cutout (7) between throat plate (6) and hook cover (8).
6. Cut off the hook thread so that it sticks out 1-2 cm.

Information

On machines equipped with a short thread cutter, the thread is not guided out of the slide plate, but clamped at the thread-pulling knife:

Fig. 23: Threading the hook thread (3)



4.2 Thread tension

NOTICE

Property damage may occur!

Damage to the machine.

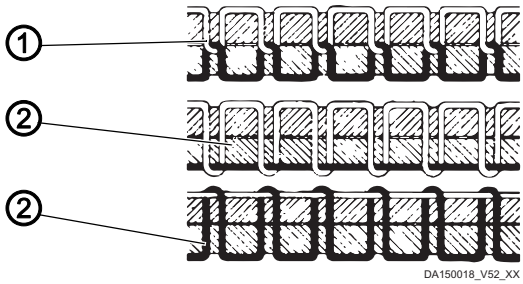
Ensure that the supply groove is facing the machine during winding. This ensures that the thread will be wound through the supply groove first.

Together with the hook thread tension, the needle thread tension influences the final seam pattern. With thin sewing material, excessive thread tension can lead to undesired ruffing and thread breaking.

Proper setting

If the tension of needle thread and hook thread is identical, the thread interlace lies in the middle of the sewing material.
Adjust the needle thread tension so that the desired seam pattern is achieved with the lowest possible tension.

Fig. 24: Thread tension



(1) - Identical needle thread and hook thread tension
(2) - Hook thread tension higher than needle thread tension
(3) - Needle thread tension higher than hook thread tension

4.2.1 Adjusting the needle thread tension

Adjusting the needle thread tension electronically (ETT)

Only users with security level **2** can adjust the needle thread tension electronically or in the `Setup` menu (📖 *p. 82*).

It is not possible to adjust the needle thread tension manually.

Information

To avoid having to set the needle thread tension anew for every seam record set, you can create so-called teach-in files and link these files to the seam record sets (📖 *p. 94*).

Important

The thread tension sensor must be re-calibrated once a year. For this purpose, turn to Dürkopp Adler's service department before the year runs out (*www.duerkopp-adler.com*).

4.2.2 Adjusting the hook thread tension

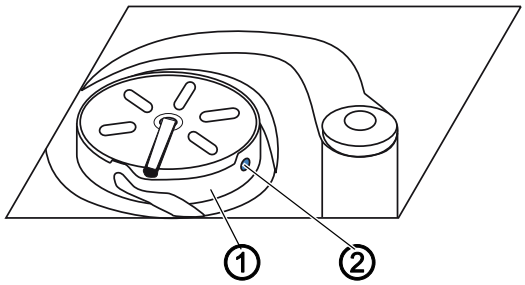
WARNING

Risk of injury from needle tip and moving parts!

Puncture, cutting and crushing possible.

Switch off the machine before adjusting the hook thread tension.

Fig. 25: Adjusting the hook thread tension



(1) - Tension spring *(2) - Screw*

The hook thread tension is generated by the tension spring (1) and adjusted via the screw (2).

To adjust the hook thread tension:

1. Turn the screw (2).
   - **Increase the hook thread tension:** Turn screw (2) clockwise
   - **Reduce the hook thread tension:** Turn screw (2) counterclockwise

4.3 Adjusting the needle thread regulator

WARNING

Risk of injury from needle tip and moving parts!

Puncture, cutting and crushing possible.

Switch off the machine before adjusting the needle thread regulator.

The needle thread regulator (2) regulates the amount of needle thread required for forming the stitch.

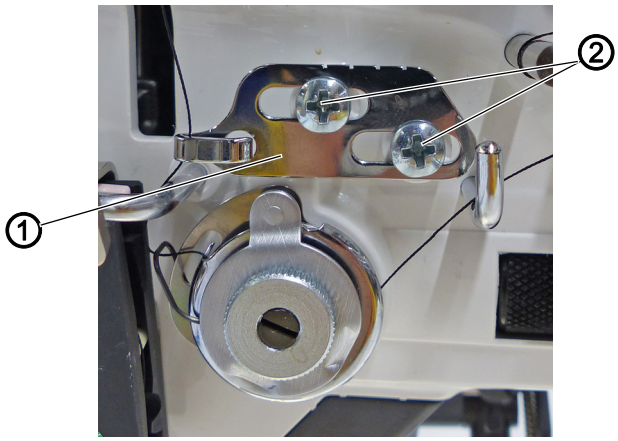
An optimum sewing result is possible only when the needle thread regulator is exactly adjusted.

With the correct setting the needle thread loop must slide over the thickest part of the hook at low tension.

Proper setting

The loop of the needle thread slides at low tension over the thickest point of the hook.

Fig. 26: Adjusting the needle thread regulator



(1) - Needle thread regulator *(2) - Screws*

To adjust the needle thread regulator:

1. Loosen the screws (2).
   - **To increase the tension:** Slide the needle thread regulator (1) to the right
   - **To reduce the tension:** Slide the needle thread regulator (1) to the left
2. Tighten the screws (2).

4.4 Locking the sewing foot in top dead center

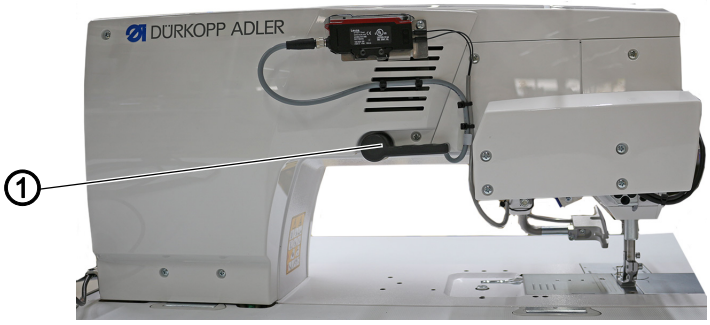
WARNING

Risk of injury from moving parts!

Crushing possible.

Do NOT reach into the area of the sewing foot.

Fig. 27: Locking the sewing foot in top dead center



(1) - Lever

To lock the sewing foot in place in top dead center:

1. Swivel the lever (1) down.

↳ The sewing foot is locked in place in top dead center.

2. Swivel the lever (1) up.

↳ The lock is removed.

Information

The sewing foot can also be lifted electronically using the pedal (📖 *p. 56*). The lever (1) will then swivel up automatically.

4.5 Adjusting the sewing foot stroke

Fig. 28: Adjusting the sewing foot stroke

(1) - Knee button

The stroke can be adjusted between 0.5 and 9.0 mm.

To adjust the stroke:

1. Adjust the stroke of the sewing foot in the seam record set (📖 *p. 94*).
2. To switch on the maximum stroke while sewing in free seam sections, press the knee button (1).

Information

This function will be locked in documented seam sections.

Sewing foot stroke and speed are interdependent.
The control detects the set sewing foot stroke using a potentiometer and limits the speed. The values are preset on the control side.

4.6 Adjusting the sewing foot pressure

Users with the proper access rights can set different sewing foot pressure levels for every seam section.

You will find the setting option in the software on the start screen:
Seam pr. > Editor > DacFlex

4.7 Adjusting the stitch length

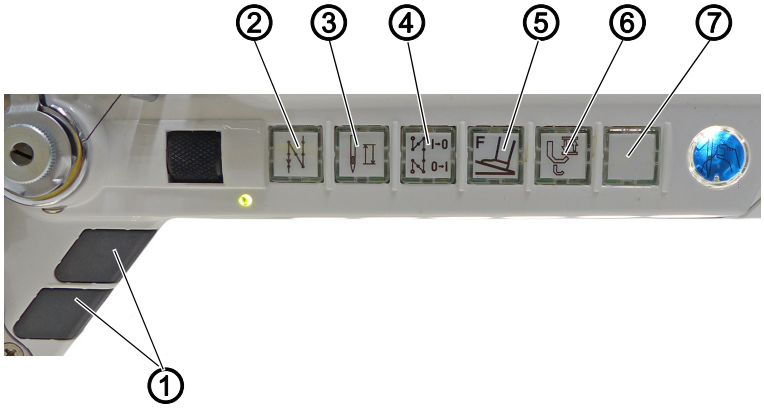
Users with the proper access rights can set different stitch lengths for every seam section (in the software on the start screen under *Seam pr.*).

4.8 Quick functions on the push buttons

The machine has push buttons on the machine arm which can be used to activate specific functions while sewing. You can define the settings in the software: *Check - DacFlex Commander*. Refer to the **Operating Instructions D867**, chapter **Programming**, for detailed instructions.

4.8.1 Activating/deactivating function keys

Fig. 29: Activating function keys



(1) - Favorite buttons
(2) - Sewing backwards
(3) - Needle position
(4) - Bartack suppression
(5) - Stitch length preselection
(6) - Additional value Needle thread tension
(7) - fully customizable button

Activating a function

To activate a function key:

1. Press the desired button.

↳ Function is activated. The button lights up.

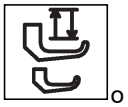
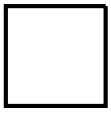
Deactivating a function

To activate/deactivate a function key:

1. Press the desired button again.

↳ Function is deactivated. The button turns off.

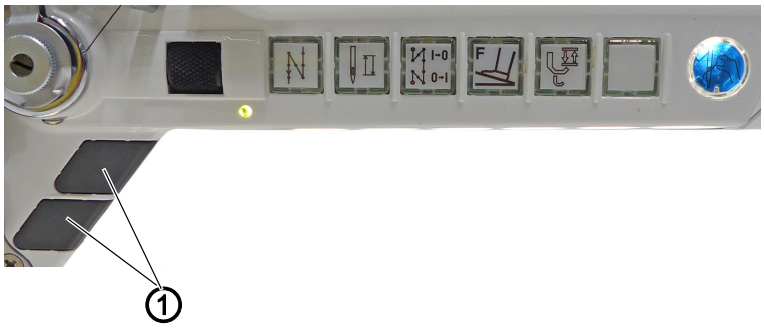
Functions of the buttons

Button	Function
	**Sewing backwards** When this button is activated, the machine sews in reverse.
	**Needle position** When this button is activated, the needle moves to a specific position. This position is determined individually via the parameter settings. For more information, read the 🕮 *Service Instructions*. The machine comes configured so that selecting the button will bring the needle up to the top dead center. This button will be locked in a documented seam section.
	**Bartack suppression** This button cancels the general setting for sewing start and end bartacks. If bartacks are on, pressing the button skips the next bartack. If bartacks are off, pressing the button sews the next bartack.
	**Cancel tearing seam** Forced canceling of the tearing seam.
	**Stroke quick adjustment**
	**Fully customizable** The button is fully customizable. The machine comes configured so that a press of the button will switch on the underarm lighting.

4.8.2 Assigning a function to the favorite buttons

You can transfer the button functions from the push button panel to the favorite buttons. Select a function that you frequently use so that you can switch it on faster while sewing.

Fig. 30: Assigning a function to the favorite buttons



(1) - Favorite buttons

You can assign any functions you require to the favorite buttons. You can define the settings in the software.

You can define the settings in the software:
`Check - DacFlex Commander`. Refer to the **Operating Instructions D867**, chapter **Programming**, for detailed instructions.

4.8.3 Switching the function of a favorite button on and off

To switch the function of a button on:

1. Press the desired (1)-(6).

↳ The button lights up; the function is switched on.

To switch the function of a button off:

1. Press the button whose function is switched on.

↳ The button is no longer lit; the function is switched off.

4.9 LEDs on the machine arm

Fig. 31: LEDs on the machine arm

(1) - LED

The color of the LED (1) on the machine indicates specific information:

Color of the LED	Meaning
red	Tearing seam
green	Free/normal seam
blue	Remaining thread monitor detects that bobbin is nearly empty

4.10 Skip Stitch Detection (SSD)

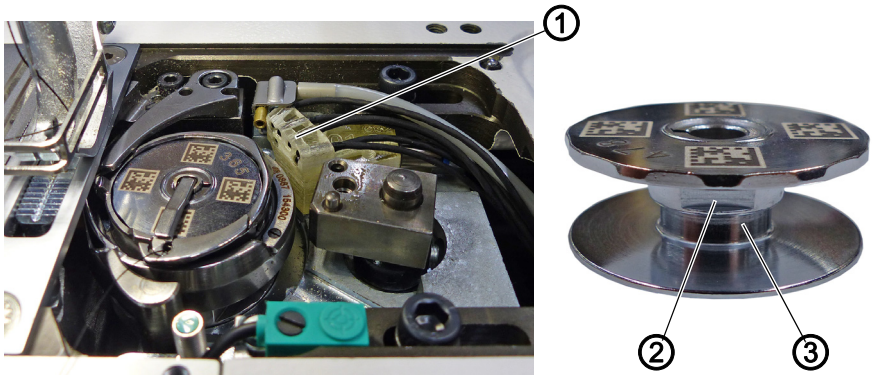
WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only change the bobbin with the machine switched off.

Fig. 32: Skip stitch detection (1)



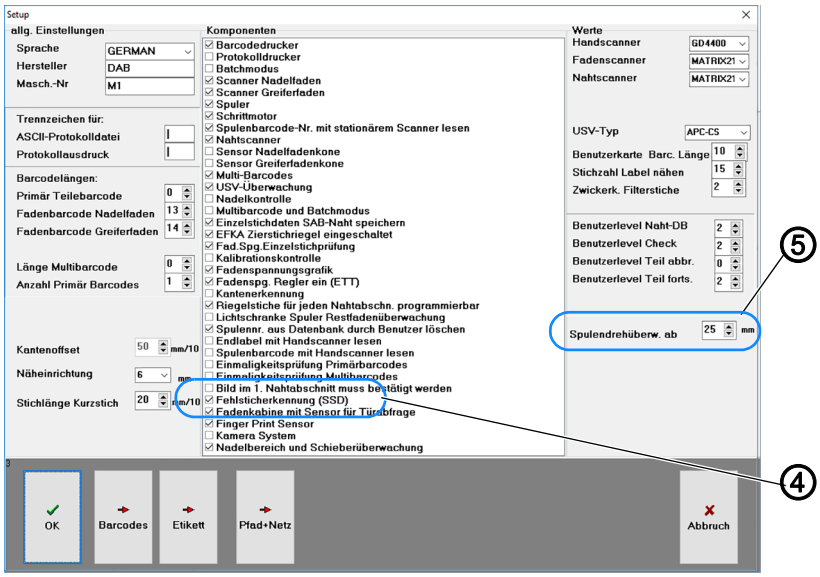
(1) - Skip stitch detection
(2) - Flat
(3) - Supply groove

The *Skip Stitch Detection* assembly comprises the following components:

- **Enlacement check (UK):** This sensor checks prior to each stitch if the needle thread is pulled around the bobbin by the hook.
- **Bobbin rotation monitor (SDÜ):** The sensor checks if the bobbin rotates during the sewing process. If the hook thread is pulled off the bobbin correctly, sewing without a hook thread (false sewing) is certain not to take place.
- **Remaining thread monitor:** The sensor monitors the hook thread quantity on the bobbin inside the bobbin case. If the light beam from the light barrier is reflected off the flat (2) during sewing, a message will be displayed on the control panel. This signals that the hook thread quantity is running low.
  The user can finish the seam and change the bobbin afterwards (📖 *p. 32*).

Information

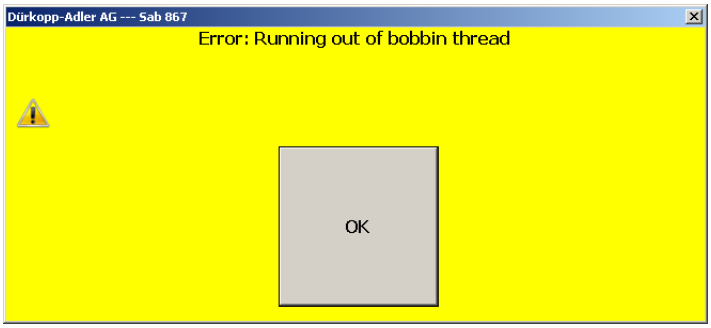
Fig. 33: Skip stitch detection (2)



(4) - Skip Stitch Detection (SSD) *(5) - Bobbin rotation monitor*

In the menu `Setup > Components` the check box `Skip Stitch Detection (SSD)` (4) must be turned on.
Set the mm value in the section `Bobbin observance from` (5) starting with which the SDÜ sensor will be active (the bobbin will not start rotating immediately even though the machine is already sewing).
The value is based on experience and may vary with the bobbin, the thread and the thread tension (preset value = 25).

Fig. 34: Skip stitch detection (3)



Proceed as follows if the skip stitch detection (1) signals the end of the hook thread:

1. Confirm the message on the control panel with **OK**.
2. Release the pedal before pressing it forward again.
3. Finish the seam you started.

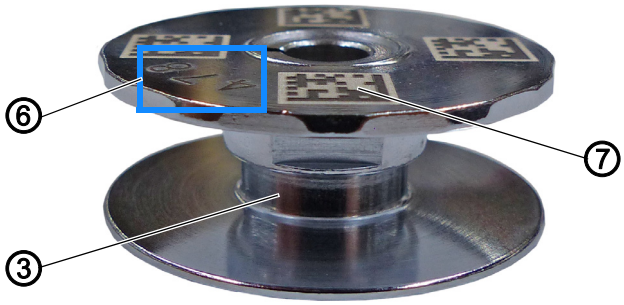
↳ The amount of thread in the supply groove (3) of the bobbin is usually sufficient.

4. Press the pedal to position **-2** at the seam end (📖 *p. 54*).

↳ The thread is cut off.

5. Use **Back** to exit sewing mode on the control panel.

Fig. 35: Skip stitch detection (4)



(3) - Supply groove
(6) - Bobbin number
(7) - Bobbin barcode

Important

Insert the bobbin such that the bobbin number (6)/the bobbin barcode (7) is facing up.
The basin for the bobbin spring is found on the bottom.

6. Change the bobbin (📖 *p. 32*).
7. Use **Sew** on the control panel to re-activate sewing mode.

↳ You can start sewing a new seam.

Important

If the empty bobbin is not replaced with a full one, the control panel will display the error message again during the next seam.

8. Wind on the hook thread, (📖 p. 29).

Cleaning the skip stitch detection

WARNING

Risk of injury from moving, cutting and sharp parts!

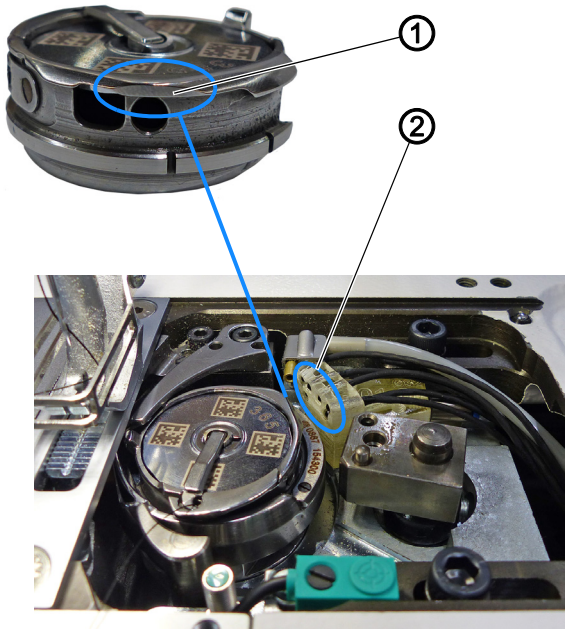
Crushing, cutting and punctures are possible.

Remove any sewing dust from the bobbin case and the light barrier.

Do not clean the lenses of the light barriers unless the machine is switched off.

Even the smallest remnants of fabric in front of the sensor lenses of the skip stitch detection will cause the skip stitch detection to stop working properly. To ensure fault-free operation, you must clean the sensor of the skip stitch detection using compressed air at least once a day (📖 p. 212).

Fig. 36: Skip stitch detection (5)



(1) - Surface on the hook *(2) - Sensors*

To clean the sensor:

1. Switch off the machine.
2. Clean sensors (2) using compressed air.
3. Clean the surface on the hook (1) and the sensors (2) with a cloth.

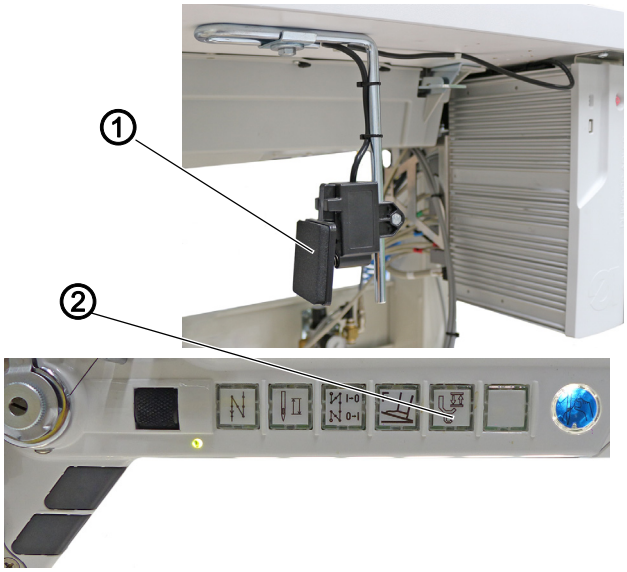
↳ The machine can be switched back on.

4.11 Quick stroke adjustment

The sewing foot stroke can be activated using the button on the machine arm or the knee button.

On machines equipped with a knee button, the knee button can be used to switch on the increased sewing foot stroke. You can assign functions to the knee button in the software using the control panel of the machine.

Fig. 37: Quick stroke adjustment



(1) - Knee button *(2) - Button*

To switch on maximum sewing foot stroke in a free/non-documented seam section:

1. Press the knee button (1).

The sewing foot stroke remains active for as long as you hold down the knee button (hold-to-run mode) / until the next time you press the knee button (push-to-run mode).

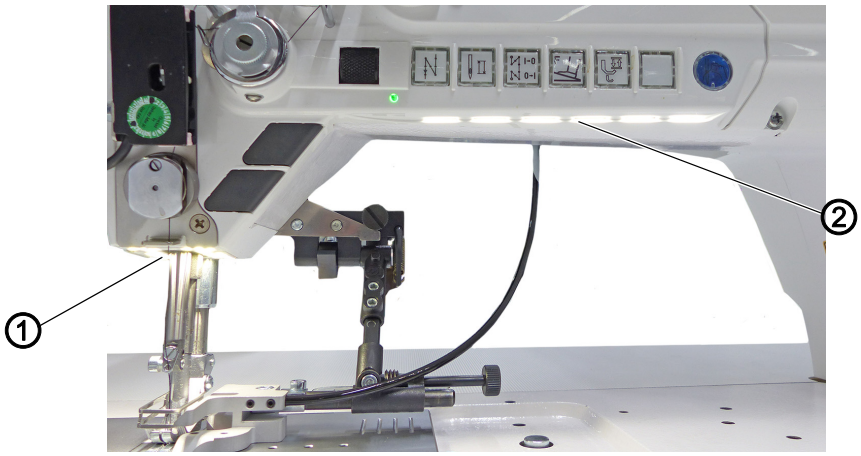
OR

1. Press the button (2).

4.12 Switching on and off the sewing light

The machine comes with a classic sewing light (1) in the area of the needle and machine head lighting (2) in the area of the arm.

Fig. 38: Switching on and off the sewing light



(1) - Sewing light *(2) - Machine head lighting*

Dimming the sewing lights

You can adjust the brightness of the sewing lights via software on the control panel: *Check - DacFlex Commander*. Refer to the **Operating Instructions D867**, chapter **Programming**, for detailed instructions.

Switching on and off the sewing lights

By default, there is no simple way to switch the sewing lights on or off. Enabling this option requires that you assign the function to switch the lights on and off to the buttons on the push button panel.

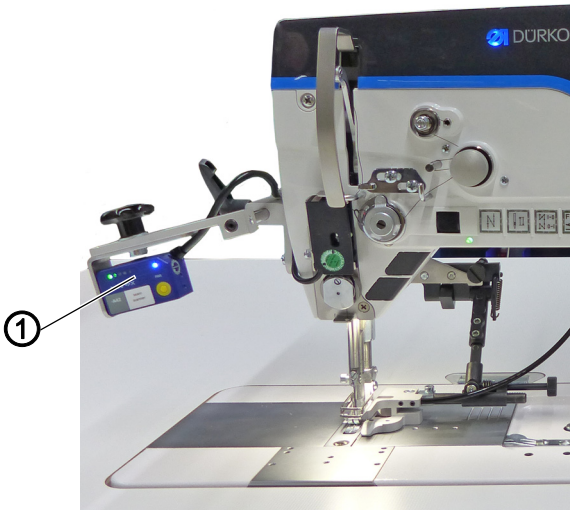
You can assign functions to the buttons via software at the control panel (*Burger menu* - *Settings* - *User Configuration* - *Smart keys configuration*).

4.13 Additional equipment

The machine can be used in combination with different additional equipment.

4.13.1 End label scanner

Fig. 39: End label scanner



(1) - End label scanner

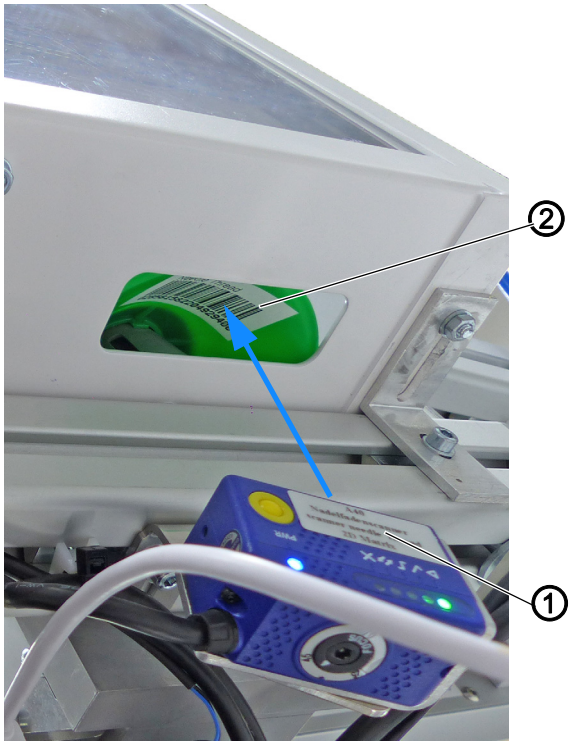
An optional end label scanner (1) can be attached to the machine head. This scanner is used to check if the correct label has been sewn on.

Important

The end label MUST be scanned and sewn into a free seam section at the end of a sewing process. Otherwise, the finished sewing material will be faulty and not suitable for use.

4.13.2 Barcode scanner for needle and hook thread

Fig. 40: Barcode scanner for needle and hook thread



(1) - Barcode scanner for needle and hook thread

(2) - Needle/hook thread barcode

The barcodes and needle and hook thread can be captured using the hand scanner or the two scanners listed below:

- Barcode scanner for the needle thread
- Barcode scanner for the hook thread

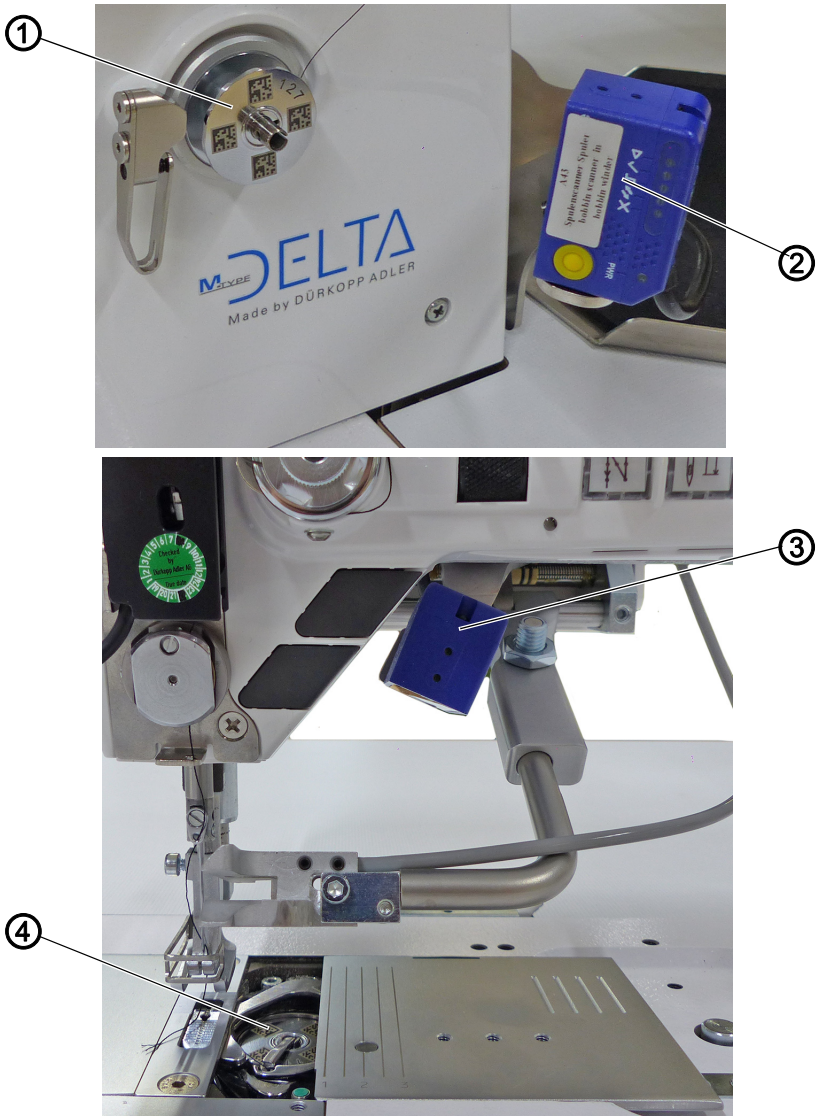
If these barcode scanners are installed, the barcodes of needle / hook thread will be scanned as soon as a sewing process is started / a bobbin is wound.

Information

The barcodes under the needle and hook thread reels must be aligned so that they can be captured completely by the barcode scanners.

4.13.3 Bobbin identification

Fig. 41: Bobbin identification



(1) - Bobbin on the winder
(2) - Barcode scanner
(3) - Barcode scanner
(4) - Bobbin in the hook

The bobbin identification is composed of scanners (2) and (3), which capture the barcode on the bobbin on the winder (1) and the barcode of the bobbin inside the hook (4).

The bobbin number of the bobbin on the winder (1) is

- scanned prior to every winding process and
- linked to the barcode of the hook thread reel

The bobbin number of the bobbin inside the hook (4) is scanned before the seam beginning and compared to the seam record set.

This ensures that the hook thread matches the seam record set. If a different hook thread has been defined in the seam record set, the machine will lock the sewing process and report an error.

4.13.4 Needle cooling from above

It is possible to cool the needle from above using cold air. The cold air is fed through a small tube at the walking foot bar that is moving along with the bar.

Needle cooling is electropneumatic and may become necessary depending on the strength and thickness of the sewing material.

4.13.5 Needle cooling from below

It is possible to cool the needle from below using cold air. The cold air is fed through a flow of air in the feed dog.

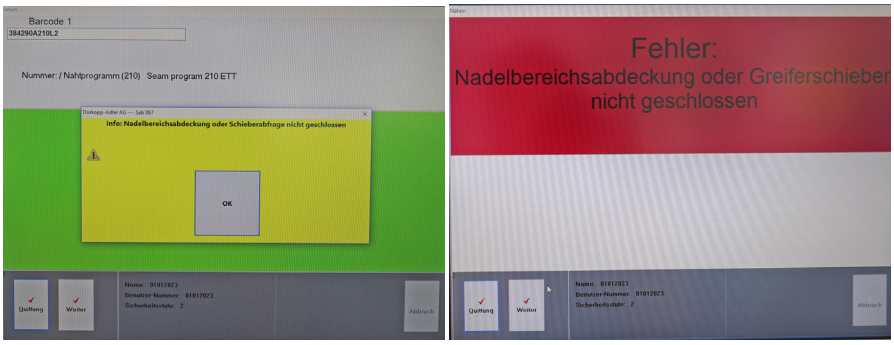
Needle cooling is electropneumatic. This type of cooling may be useful in addition to needle cooling from above depending on the strength and thickness of the sewing material.

4.13.6 Operation lock

Sewing requires that both the needle area cover and the throat plate slide be closed.

If the needle area cover (1) and/or the throat plate slide are opened prior to or during sewing, you will not be able to sew, and the following error messages will be displayed:

Fig. 42: Operation lock (2)



If shown an error message, close the needle area cover and the throat plate slide.
Acknowledge the error message.
Afterwards, start the sewing process again.

4.14 Sewing

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Guide the material so that your hands do not slip under the needle.

Do not press the pedal when your fingers are in the area of the needle tip.

NOTICE

Property damage may occur!

Remnants of fabric and thread entering the sewing area can result in damage or defects on the machine.

Immediately remove any contamination during the sewing process. Clean the machine daily (📖 *p. 212*).

The sewing process comprises the following parts:

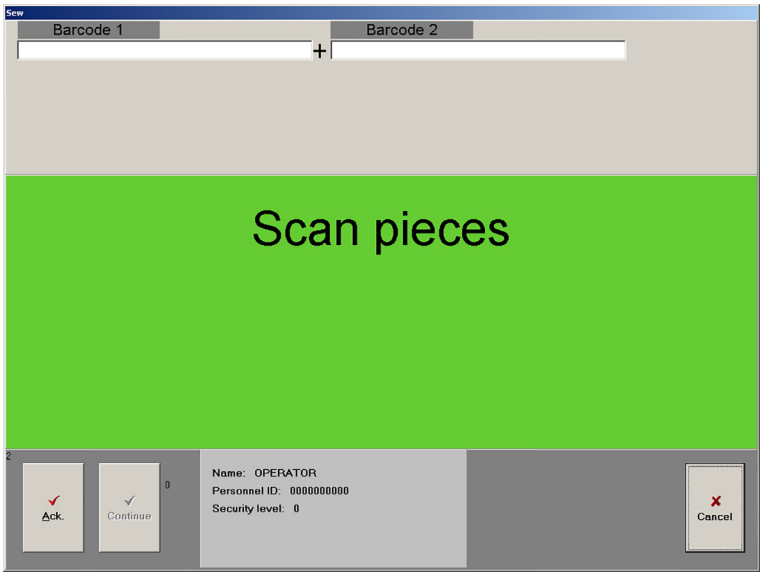
- Scanning the barcodes parts primary
- Scanning multiple barcodes if necessary
- Scanning up to 20 defined seam sections
- Sewing in the end label during the last seam section
- Sewing in a second label if necessary

To start the sewing process:

1. Log in (📖 *p. 75*).
2. Press the **Sew** button on the main screen.

↳ The display switches to:

Fig. 43: Sewing (1)



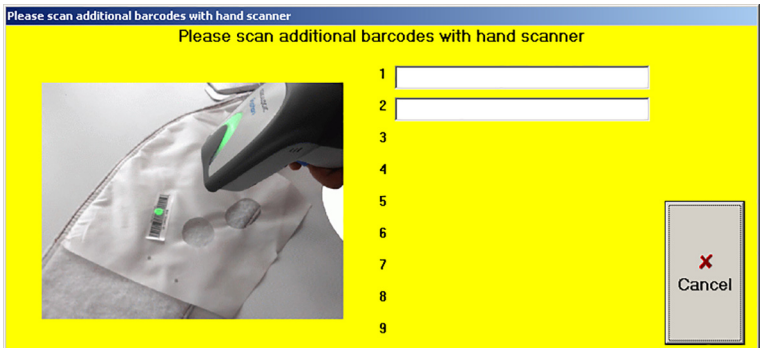
3. Scan the barcodes parts primary of the sewing material.

↳ The system checks if the sewing material (2 or 3 pieces) matches the selected seam record set. If this is not the case, an error message will appear.

Information

If, under *Setup*, the function **Multiple barcodes** or **Multiple barcodes with batch mode** is activated, the display switches to the following after the scanning of the barcodes parts primary:

Fig. 44: Sewing (2)



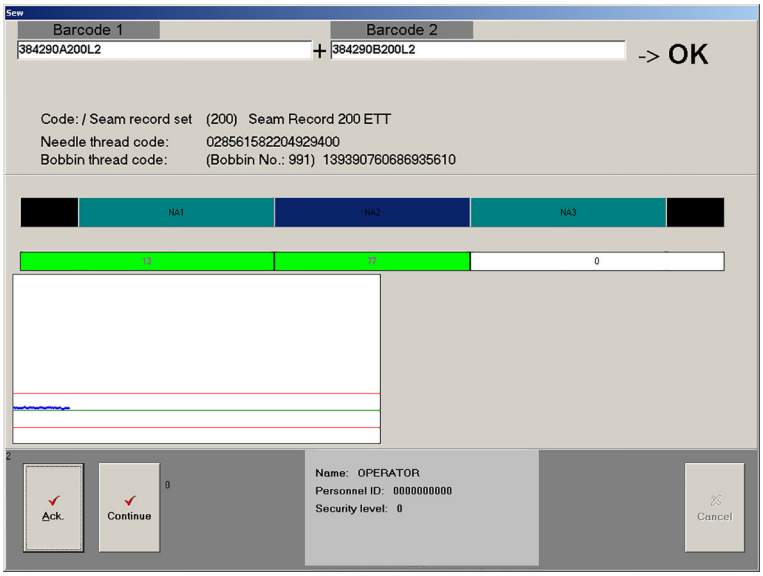
4. Scan 2 multiple barcodes.

   You can predefine up to 9 multiple barcodes. In this seam record set, 2 multiple barcodes will be requested at the beginning.

5. Sew seam sections.

↳ The display switches to:

Fig. 45: Sewing (3)



↳ The green LED on the tensioning plate will be on while you are sewing the free seam sections, and the red LED on the tensioning plate will be on while you are sewing documented seam sections.

6. Sew in the end label (📖 *p. 58*).
7. Finish the last seam section by sewing an end bartack.

Important

If an error occurs, especially during a monitored seam section, an error message will be displayed (📖 *p. 233*).

4.14.1 Pressing the pedal

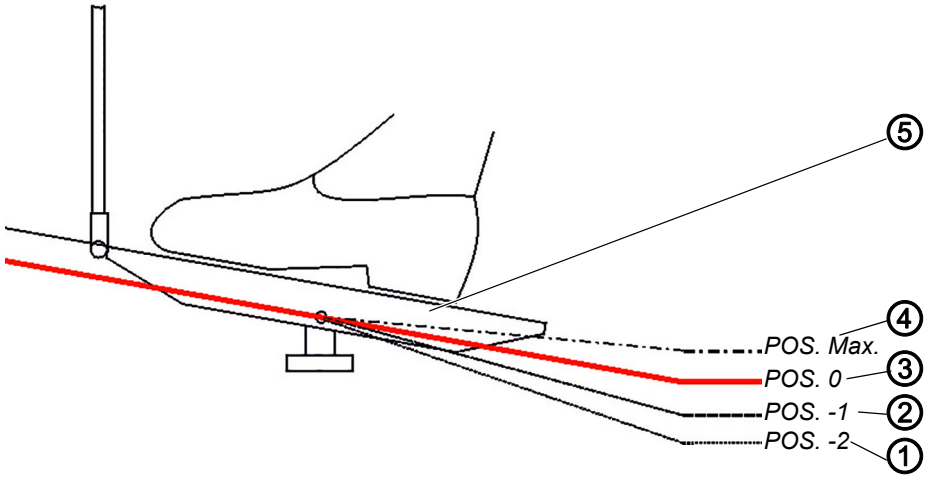
WARNING

Risk of injury from moving parts!

Crushing possible.

Do NOT put your hands under the lifted sewing foot.

Fig. 46: Pressing the pedal



(1) - Sew end bartack and cut off thread
(2) - Lift sewing foot
(3) - Rest position
(4) - Sewing active
(5) - Pedal

The pedal (5) starts and controls the sewing process.

Initial situation

The pedal (5) in position **0** (3):

↳ The machine is at a standstill.
Needle and sewing foot are up / down.

To position the sewing material:

1. Press the pedal (5) to position **-1** (2).

↳ The sewing foot is lifted.

2. Push the sewing material into the initial position.
3. Press the pedal (5) to position **0** (3).

↳ The sewing foot lowers onto the sewing material.

At seam beginning

To start a seam:

1. Press the pedal (5) forward (4).

↳ The machine sews. The speed increases the further forward the pedal (5) is pressed.

During sewing

To interrupt the seam:

1. Press the pedal (5) to position **0** (3).

↳ The machine stops.
Needle and sewing foot are up / down.

To continue the seam:

1. Press the pedal (5) forward (4).

↳ The machine continues to sew.

At seam end

To finish the seam:

1. Press the pedal (5) to position **-2** (1) and keep it there.

↳ The thread is cut.
The machine stops.
Needle and sewing foot are lifted and remain up as long as the pedal (5) is kept in the **-2** position (1).

2. Remove the sewing material.

4.14.2 Sewing in the end label

WARNING

Risk of injury from damaged tearing seams!

Possible damage to the tearing seam if the end label is sewn into the seam. In the event of an accident, the airbag may consequently fail to deploy, keeping it from protecting against serious injury.

See the end label ONLY into a free seam section.

Since it is a production step essential to safety, the sewing of the tearing seams is documented. All production data pertaining to every tearing seam is recorded, saved and must be stored permanently.

In addition, every tearing seam is assigned an end label that includes a barcode. This barcode makes it possible to retrieve the production data from the database at any time.

The end label is printed on tear-resistant and flame-resistant material by the end label printer and sewn into a free seam section at the end of the sewing process. This ensures for the long term that the end label will not be lost and can always be clearly attributed at any time.

If you, for instance, wish to sew the end label into the 3rd seam section and check the end label barcode, the function **End label** in the seam record set must be activated for the 3rd seam section.

The end label printer will then automatically print the end label at the end of the documented seam section. A scan of the end label barcode is used to check if the correct end label is sewn in.

Fault-free sewing process

To sew in the end label:

1. Use the hand scanner (1) or the end label scanner to scan the end label barcode.

↳ The number of the end label barcode appears in the input field on the control panel.

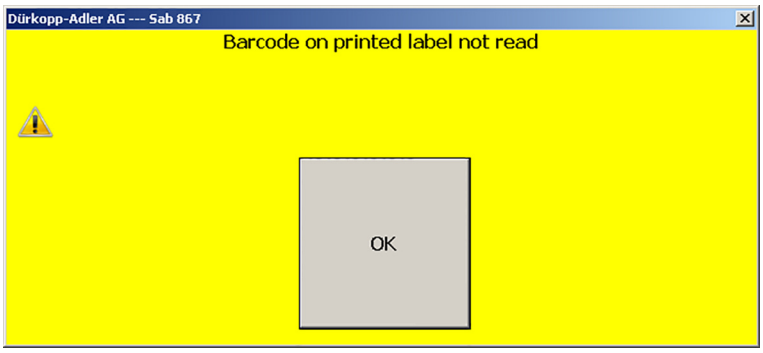
2. Confirm with **OK**.
3. Sew the end label into a free seam section.

↳ The next sewing process can be started when the seam record set was completed without errors.

Faulty sewing process

If the end label is not scanned or not detected by the end label scanner, the following reminder will be displayed after a preset number of stitches in the last seam section:

Fig. 47: Sewing in the end label (1)



1. Confirm with **OK**.
2. 2 options:
   - Scan the end label barcode, sew in the end label and complete the sewing process.

   OR

   - Complete the sewing process without sewing in the end label because, for instance, the end label is damaged and the end label barcode can no longer be scanned.

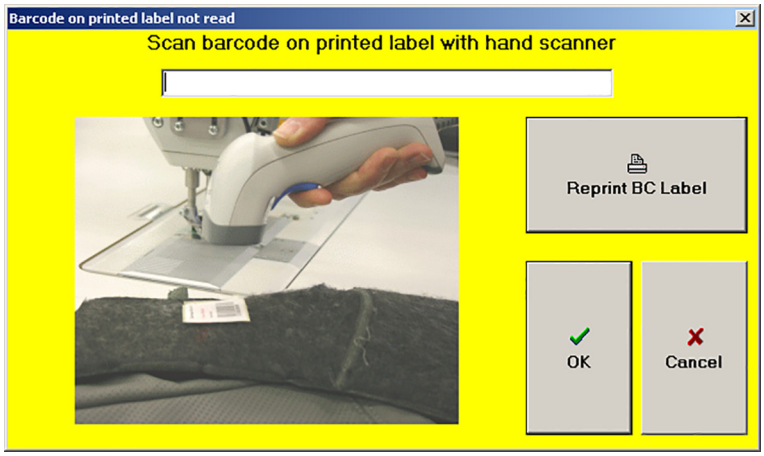
↳ An error message is displayed.

Users with security level **0** will only be able to cancel the sewing process from here on. The sewing material in this case is faulty and not suitable for use.

3. Log in with security level **1** or **2**.

↳ The display switches to:

Fig. 48: Sewing in the end label (2)



4. If the original end label can no longer be scanned, press the **Reprint BC Label** button.

↳ A new end label is printed.

Information

As long as the protocol file is stored in the protocol database, it will be possible at any time to scan a copy of the end label for every sewing material (📖 *p. 118*).

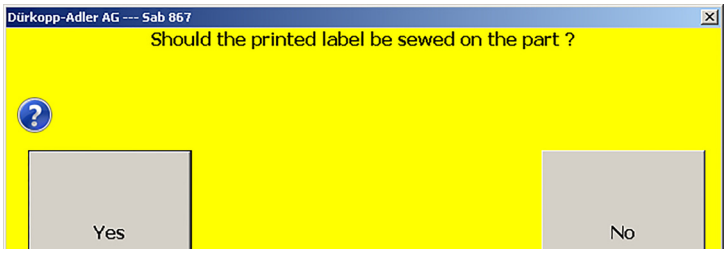
5. Use the hand scanner to scan the end label barcode.

↳ Now, only the hand scanner, rather than the end label scanner, can be used to scan the end label barcode.

6. Confirm with **OK**.

↳ The display switches to:

Fig. 49: Sewing in the end label (3)



7. 2 options:
   - Sew in the end label and complete the sewing process successfully: Press the **YES** button
   - Cancel the sewing process: Press the **No** button

↳ A tap on the **No** button will end the sewing process. The sewing material is faulty and not suitable for use.
A tap on the **YES** button will cause the display to switch to:

Fig. 50: Sewing in the end label (4)

↳ Now, the user with security level **0** who started the sewing process is automatically logged back in.

8. Sew the end label into a free seam section.

↳ The next sewing process can be started.

4.15 Disruption of the power supply

NOTICE

Property damage may occur!

Loss of power if power supply is interrupted abruptly.

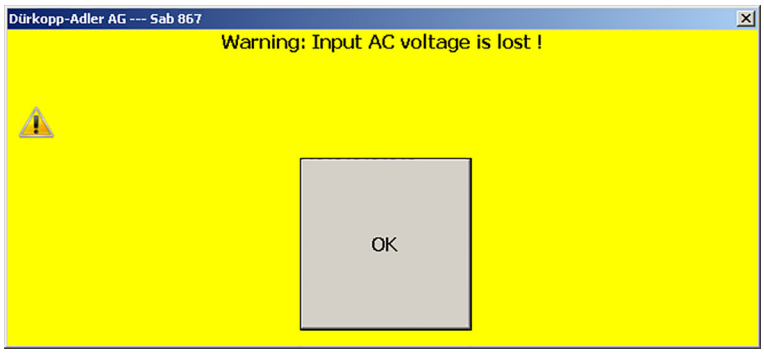
Ensure that the UPS is always on while working at the machine.

Check the condition of the battery on a regular basis. When the Replace Battery light comes on, replace the old battery with a new one of the same quality.

If the power supply to the machine is interrupted, the machine will automatically switch to battery power / start operating with the uninterrupted power supply (UPS).

An acoustic warning will sound, and a message will be displayed on the control panel, indicating how long the battery capacity will last until the machine will be switched off automatically.

Fig. 51: Disruption of the power supply



Proceed as follows in the event of a power supply disruption:

1. Complete the sewing process; the battery capacity will be sufficient to do so.

↳ Regular acoustic signals will sound, and the control panel will show a message as to how much time is left.

Information

The power consumption in standby mode is lower than during sewing.

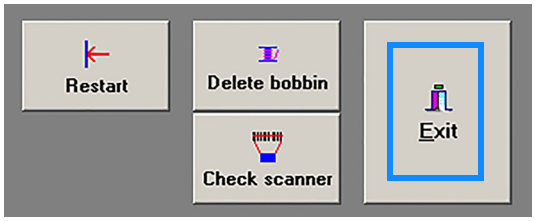
2. If the power supply remains interrupted, switch the machine off (📖 *p. 62*).

Important

To ensure that the UPS remains operational, check the condition of the battery on a regular basis (start screen: `Check > UPS`).

4.16 Switching off the machine

Fig. 52: Switching off the machine (1)

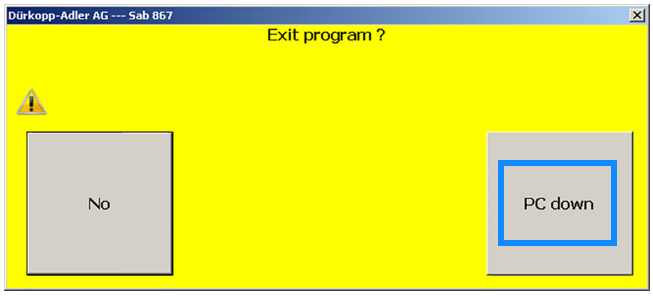


To switch off the machine:

1. Press the **Exit** button on the main screen.

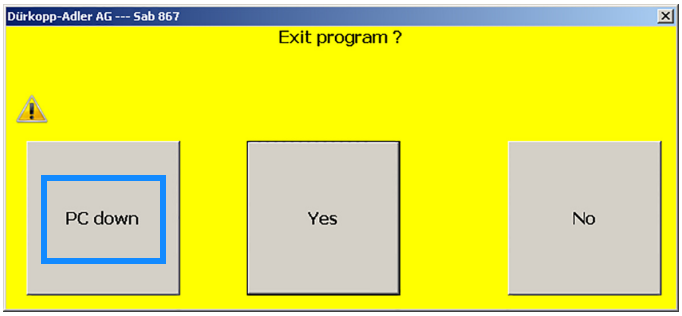
↳ If a user with security level **0** or **1** is logged in, the display will switch to:

Fig. 53: Switching off the machine (2)



↳ If a user with security level **2** is logged in, the display will switch to:

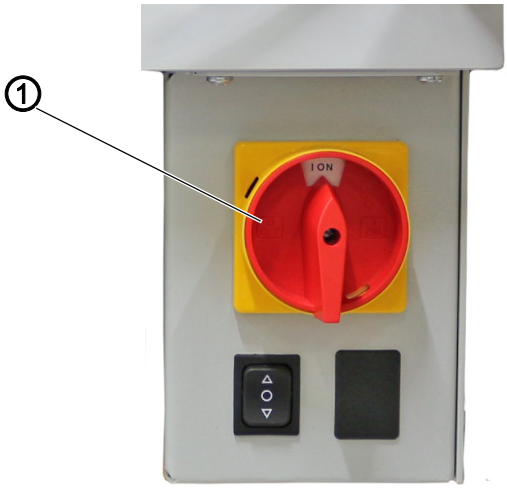
Fig. 54: Switching off the machine (3)



2. Press the **PC down** button.

↳ The control panel shuts down.

Fig. 55: Switching off the machine (4)



(1) - Main switch

3. After the control panel has shut down, set the main switch (1) to position **0**.

↳ The machine (including the control panel) is now switched off.

↳ The UPS will switch off automatically after a preset period of time (time can be set in the software: *Check > Setup*).

5 Programming

The control panel is mainly controlled by taps on the touchscreen.
A keyboard and a PC mouse are provided as additional input devices.

Access to the system is restricted by 3 security levels. Depending on their security level, users may not be able to select all buttons(📖 *p. 65*).

5.1 Structure of the software

This chapter explains the structure of the software:

- Security levels (**0**-**2**) (📖 *p. 65*)
- Start screen (📖 *p. 68*)
- Register screen (📖 *p. 73*)
- Main screen (📖 *p. 71*)
- Recurring elements (📖 *p. 74*)
- Input window (📖 *p. 75*)

Information

Not all functions are available to all users (📖 *p. 65*).

5.1.1 Security levels (0-2)

The software of the 550-867 comes standard with the following 3 security levels:

- Security level **0** = Operator
- Security level **1** = Supervisor
- Security level **2** = Product Manager/Technician

For an easier understanding, all groups of people working at the machine will be referred as user in these instructions.

Security levels

Security level	Full access to the following work steps at the machine
0 Highly restricted access	Access Sewing
1 Moderately restricted access	Access Sewing Seam record sets Database
2 Unrestricted access	Access Sewing Seam record sets Database Check

The user's access rights vary with their security level. As the machine produces tearing seams that are essential to safety, each user must log in before they can before the work designated for their access rights.

Adjusting security levels (0-2)

The security levels can be adjusted for certain activities at the machine. Adjustments to the access rights can only be made by users with security level **2**.

The following security levels have been set up at the factory:

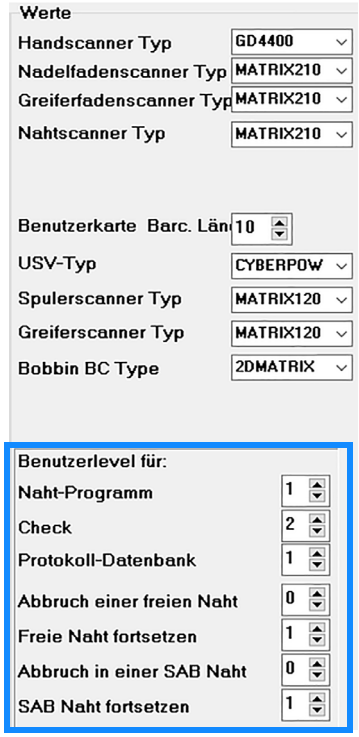
Activity	Security level
Seam program	1
Check	2
Protocol database	1
Cancel a free seam	0
Continue free seam	1
Cancel within a tearing seam	0
Continue tearing seam	1

To adjust the security levels:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Setup* display (📖 *p. 132*).

↳ The display switches to:

Fig. 56: Adjusting security levels (0-2)

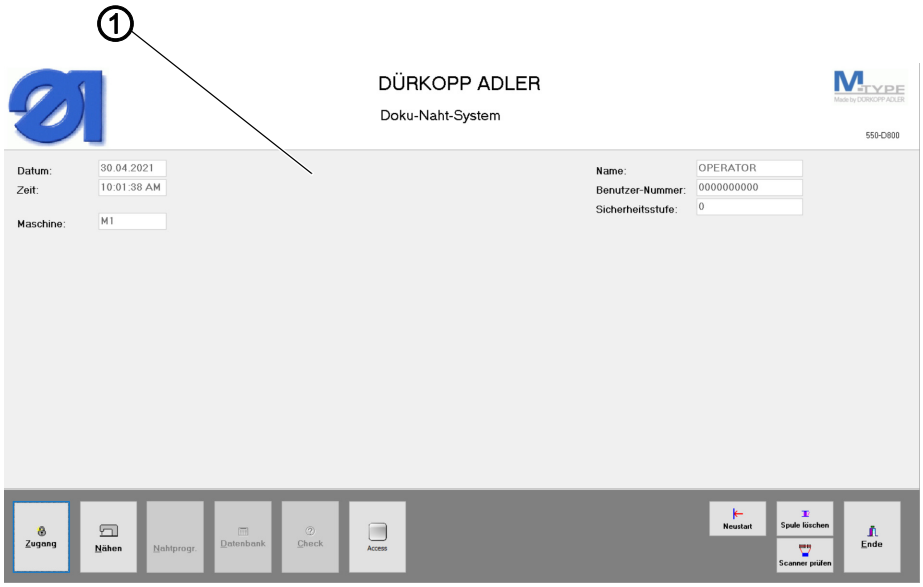


3. Adjust the security levels (`User level`) as desired.

↳ The factory setting does not allow for the option to assign every security level to every user.
For instance, it is not possible to allow a user with security level **0** to access the `Check` display, which provides access to all essential settings.

5.1.2 Start screen - preparing the machine for operation

Fig. 57: Start screen (1)



(1) - Start screen

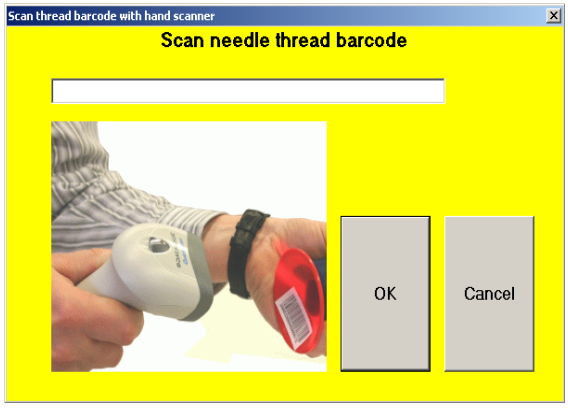
The start screen (1) is displayed immediately after the machine has been switched on. The displays vary depending on whether the machine is equipped with the various scanners or not.

The user can choose between 2 options on the register screen:

- Log in
- Shut down the PC and the machine

Preparing the machine for operation WITHOUT the scanners

Fig. 58: Start screen (2)



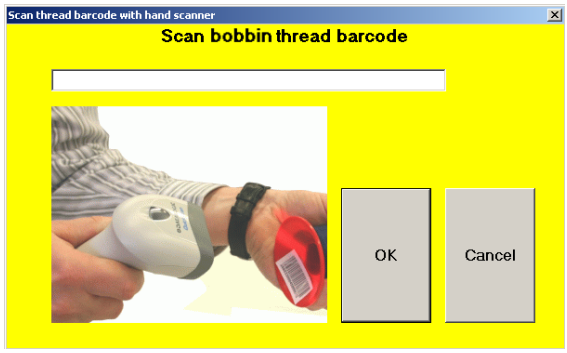
To use the displays on the start screen if the machine is neither equipped with barcode scanners for the needle and hook thread nor with a bobbin barcode scanner:

1. Use the hand scanner to scan the needle thread barcode below the needle thread cone.

2. Confirm with **OK**.

↳ The display switches to:

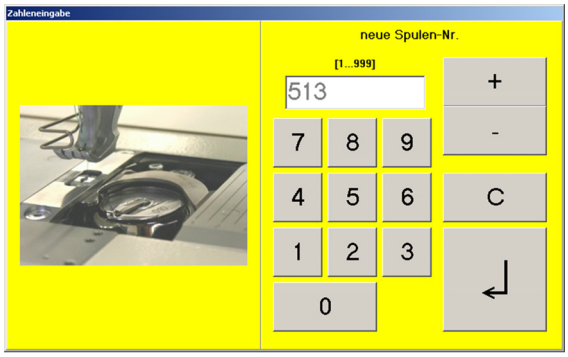
Fig. 59: Start screen (3)



3. Use the hand scanner to scan the hook thread barcode below the hook thread cone.
4. Confirm with **OK**.

↳ The display switches to:

Fig. 60: Start screen (4)



5. Slide the right hook thread cover slightly to the right.
6. If necessary, turn the bobbin such that you can read the bobbin number.
7. Enter the bobbin number.
8. Confirm with ↲.

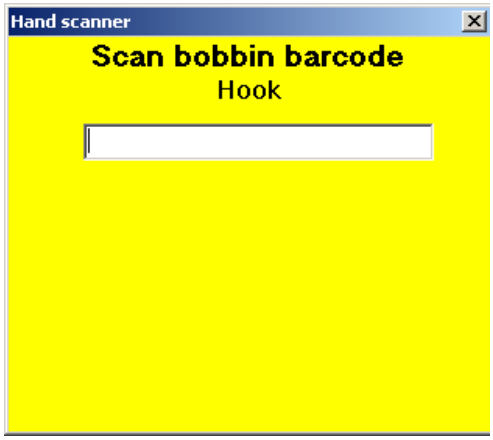
↳ You are now ready to log in (📖 *p. 75*).

Preparing the machine for operation WITH the scanners

If the barcode scanners for the needle and hook thread are present, the needle and hook thread barcodes will be scanned automatically.

You will then be shown the following display on the start screen:

Fig. 61: Start screen (5)



To use the display on the start screen if the machine is equipped with barcode scanners for the needle and hook thread and with a bobbin barcode scanner:

1. Slide the right hook thread cover slightly to the right.
2. If necessary, align the bobbin such that the bobbin barcode can be scanned in full.

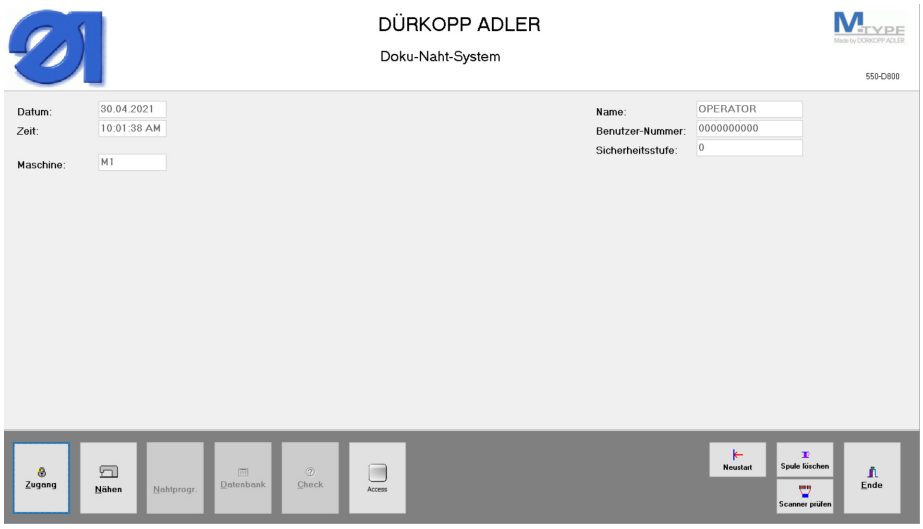
↳ Once the bobbin barcode has been scanned successfully, the display `Hand scanner` will disappear.

You are now ready to log in (📖 *p. 75*).

5.1.3 Main screen

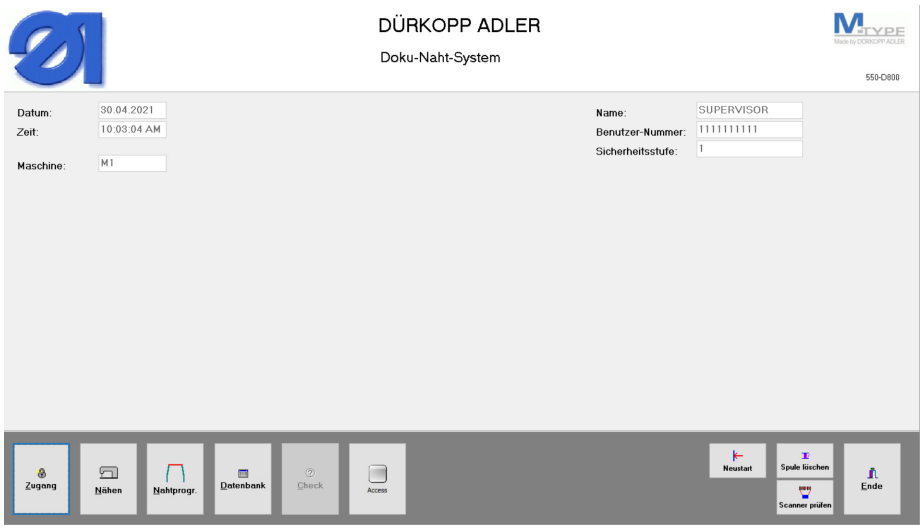
The display of the main screen varies with the user's security level.
The main screen for a user with security level **0** looks like this:

Fig. 62: Main screen (1)



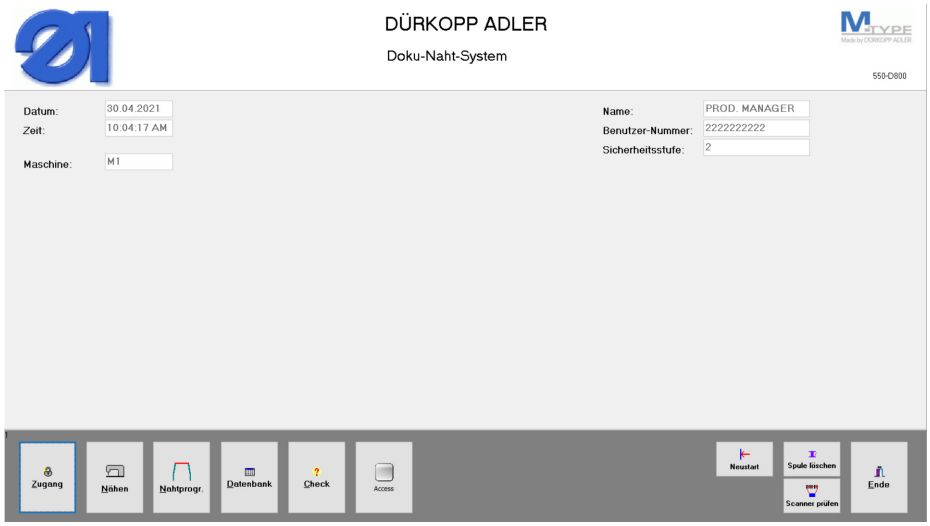
The main screen for a user with security level **1** looks like this:

Fig. 63: Main screen (2)



The main screen for a user with security level **2** looks like this:

Fig. 64: Main screen (3)



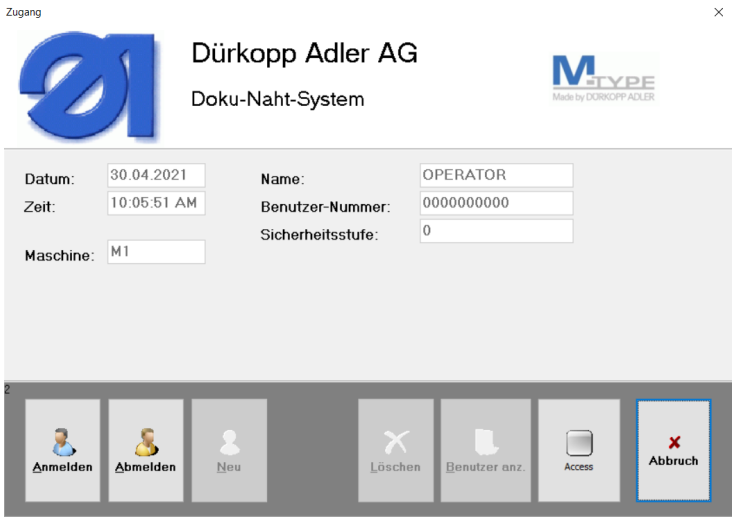
The main screen allows users with security level **2** to access all functions and settings of the machine.

Button	Functions	Security level
Access	Log out Exit program Shut down PC	**0**, **1** and **2** **2** **0**, **1** and **2**
Sewing	Begin sewing	**0**, **1** and **2**
Seam record sets	Change the settings of existing seam record sets, create new seam record sets or delete existing seam record sets.	**1** and **2**
Database	Protocol database	**1** and **2**
Check	All settings regarding the permitted threads, the access rights, the barcodes and the label are recorded here.	**2**
Reset	Restart the program 🕮 *p. 186*	**0**, **1** and **2**
Delete bobbin	Delete the bobbin in the system 🕮 *p. 174*	**0**, **1** and **2**
Exit	Exit program 🕮 *p. 187* Shut down PC	**2** **0**, **1** and **2**

5.1.4 Register screen

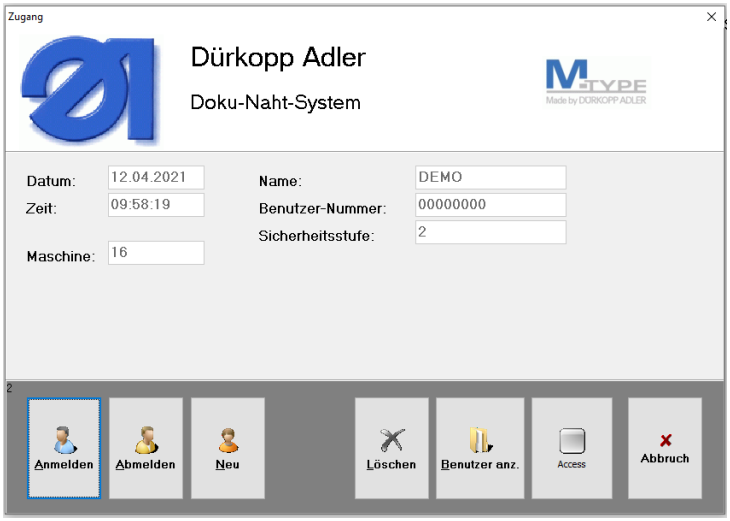
The register screen allows users with security levels **0** and **1** to merely log in and out:

Fig. 65: Register screen (1)



This is the register screen for a user with security level **2**:

Fig. 66: Register screen (2)



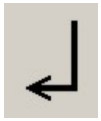
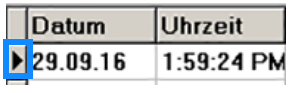
To open the register screen:

1. Press the **Access** button on the main screen.

↳ The display switches to the register screen.

5.1.5 Recurring elements

The software includes recurring elements that always perform the same function.

Recurring element	Function
	**Enter**: Save the input value and close the input window.
	**OK**: Save the input value or confirm something and close the display
	**C**: The value entered in the input window will be deleted completely. A new value can be entered.
	**Cancel**: Close the display. The changed values are not saved.
	Close the display. The changed values are not saved.
	Scroll to the right in a list.
	Scroll to the left in a list.
	Scroll directly to the beginning of a list.
	Scroll directly to the end of a list.
	Buttons are clearly identified by an edge.
	White input fields. A press of these white input fields will open an input window. Once entered, the new value appears in the white input field.
	The arrow in the first column of a list indicates which row / file has been selected.

5.1.6 Input window

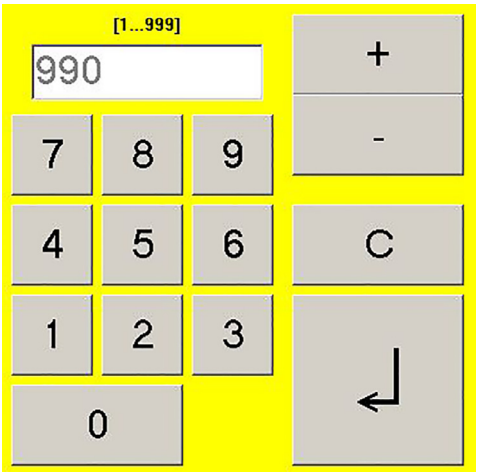
To enter values, yellow input windows open on the control panel. All input windows have the same structure, but vary in terms of their content.

Information

Enter the desired value by pressing the buttons on the control panel or by clicking with the PC mouse.

The following is an example of such an input window:

Fig. 67: Input window



5.2 Logging into the system

There are 2 or 3 different ways to log into the system that vary with the equipment of the machine:

- via hand scanner and access barcode (📖 *p. 76*)
- using a password via software (📖 *p. 77*)
- using the fingerprint scanner (optional, 📖 *p. 80*)

Information

All functions that are not available to the logged-in user on account of their access rights are displayed semi-transparent. These functions cannot be selected.

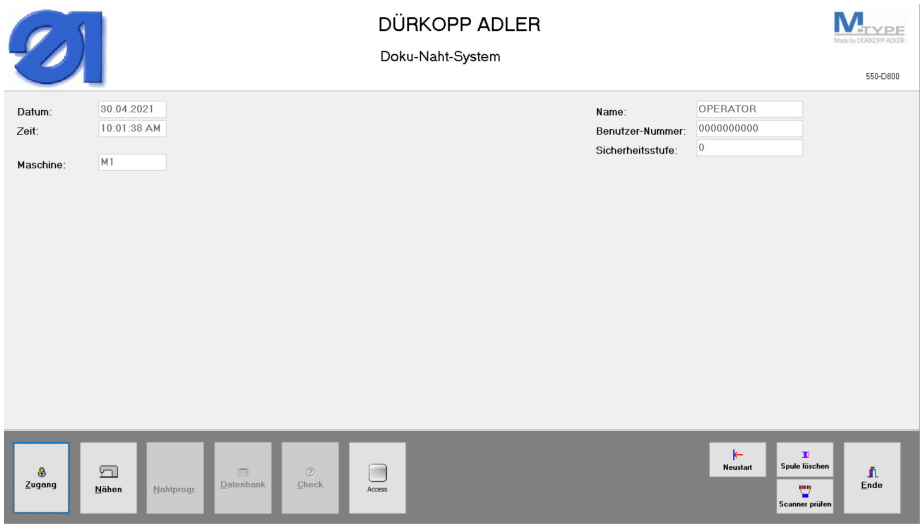
All functions that are available to the logged-in user on account of their access rights are displayed in full color.

5.2.1 Logging in with the hand scanner

Fig. 68: Logging in with the hand scanner (1)

(1) - Hand scanner

Fig. 69: Main screen (3)



To log in using the hand scanner:

1. Click and hold the **Access** button with the mouse.

↳ The display switches to:

Fig. 70: Logging in with the hand scanner (2)

Information

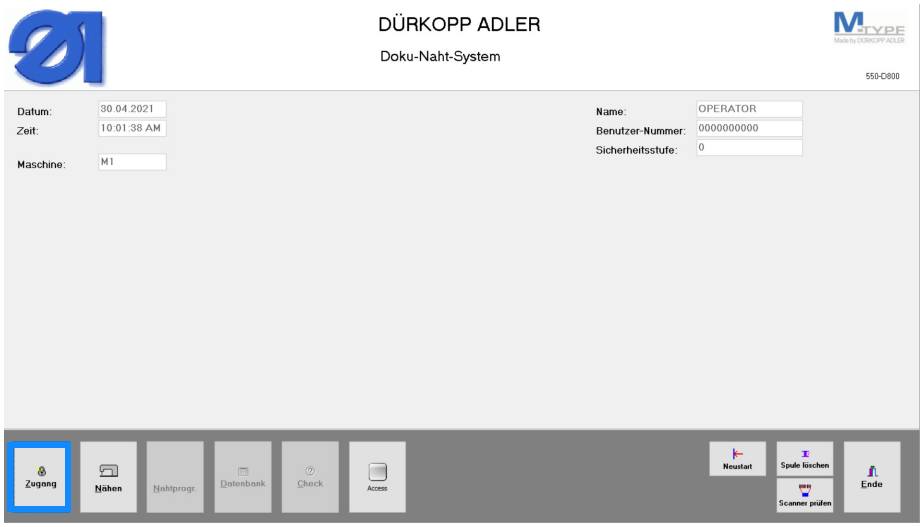
If pressing the **Access** too briefly, you will start the login procedure for the fingerprint scanner rather than the hand scanner.

2. Use the hand scanner (1) to scan the user's access barcode.

↳ The user has been logged in.

5.2.2 Logging in with a password

Fig. 71: Logging in with a password (1)

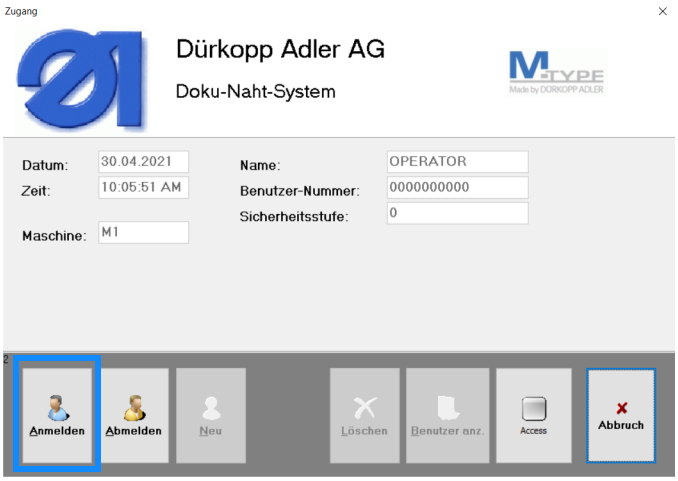


To log in manually via software:

1. Press the **Access** button on the main screen.

↳ The display switches to the register screen:

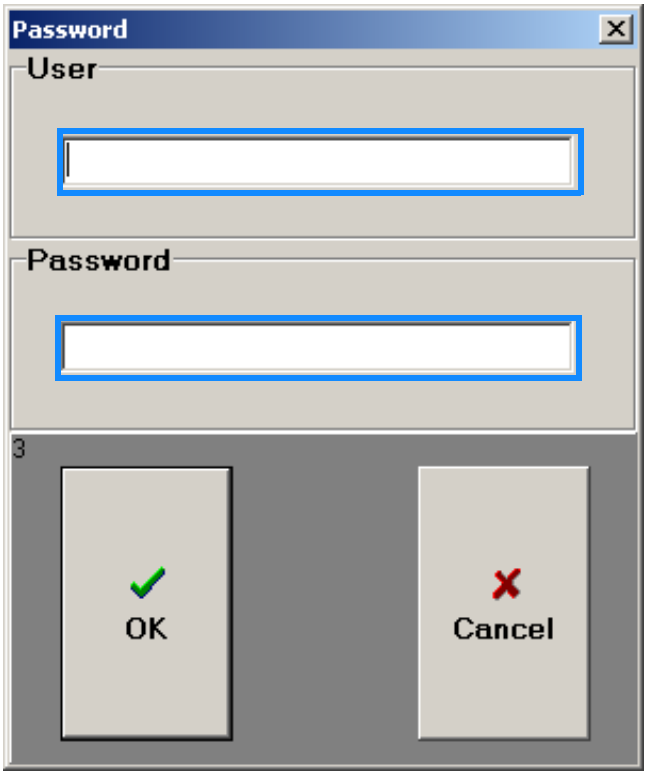
Fig. 72: Logging in with a password (2)



2. Press the **Log in** button.

↳ The display switches to:

Fig. 73: Logging in with a password (3)



3. Press the **User** input field.

↳ An input window appears.

4. Enter the desired name.

5. Confirm with **OK**.
6. Press the **Password** input field.

↳ An input window appears.

7. Enter the desired password.
8. Confirm with **OK**.

↳ You have been logged in.

5.2.3 Logging in using the fingerprint scanner

NOTICE

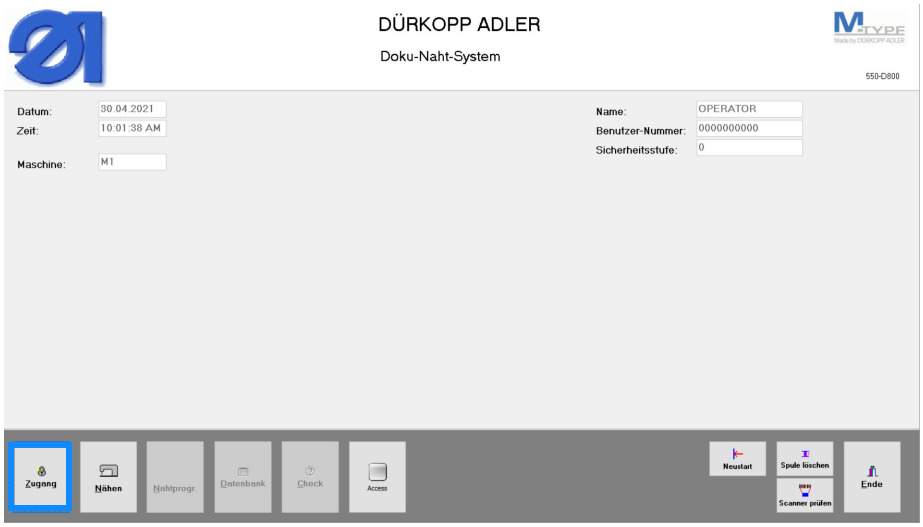
Property damage may occur!

Damage to the fingerprint sensor.

Do not exert excess pressure on the fingerprint sensor.

Depending on its equipment, the machine may be equipped with a fingerprint scanner.

Fig. 74: Logging in using the fingerprint scanner



To log in using the fingerprint scanner (2):

1. Briefly click the **Access** button with the mouse.

↳ The control panel shows a notice indicating that the fingerprint scanner (2) is active.

Information

If pressing the **Access** button too long, you will start the login procedure for the hand scanner rather than the fingerprint scanner.

Fig. 75: Logging in using the fingerprint scanner (2)

(1) - Fingerprint sensor *(2) - Fingerprint scanner*

2. Place your finger tip on the fingerprint sensor (1) for approximately 3 seconds.

↳ The control panel switches from the start screen to the main screen of the corresponding security level.

Information

If the fingerprint is not recognized because it is unknown or was captured only partially, a corresponding error message will be displayed. If a user is logged in, they will be logged out automatically.

Repeat the login procedure.

5.3 Managing users

Product managers with security level **2** can manage all users and have the following options:

- Display users
- Store individual user images
- Create new users
- Delete users

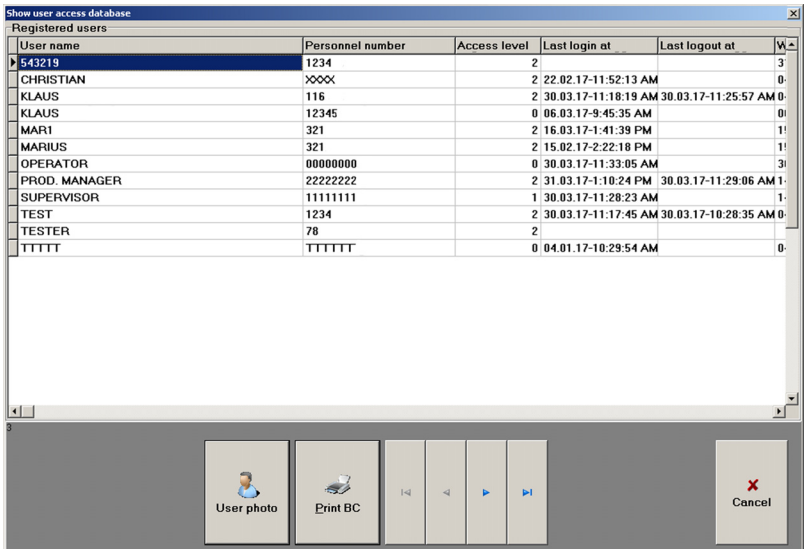
5.3.1 Opening the user database

To open the user database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the register screen (📖 *p. 73*).
3. Press the **Show users** button.

↳ The display switches to:

Fig. 76: Display users



Listed in the user database are all previously created users.

5.3.2 Printing a copy of an access barcode

If no longer usable, e.g. because it was damaged and became illegible, a barcode can be printed again.

To print a copy of an access barcode:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the user database (📖 *p. 82*).
3. Select the user whose access barcode you wish to print.
4. Press the **Print BC** button.

↳ The access barcode is printed again.

5.3.3 Opening the fingerprint database

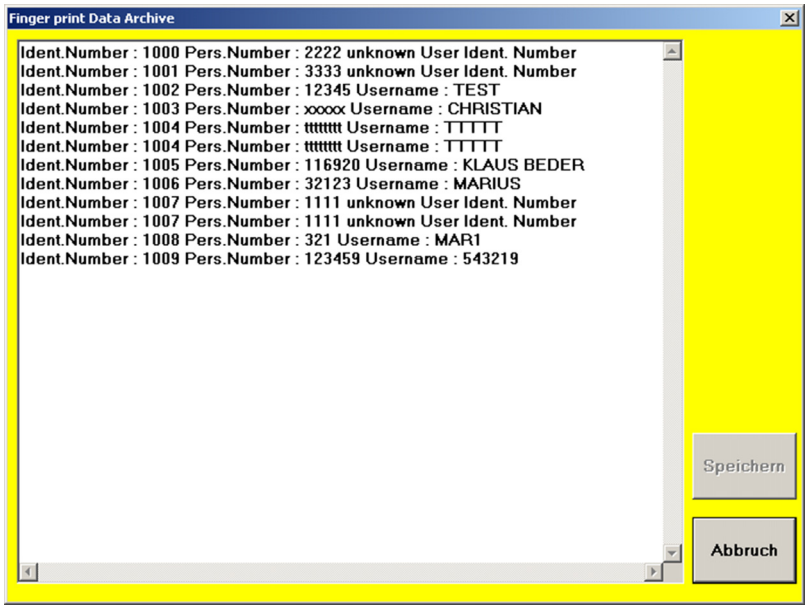
Listed in the fingerprint database are all users who have been created with the help of fingerprint detection.

To open the fingerprint database:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the user database (🕮 *p. 82*).
3. Press the **FP Data** button.

↳ The display switches to:

Fig. 77: Opening the fingerprint database



5.3.4 Storing a user photo

Information

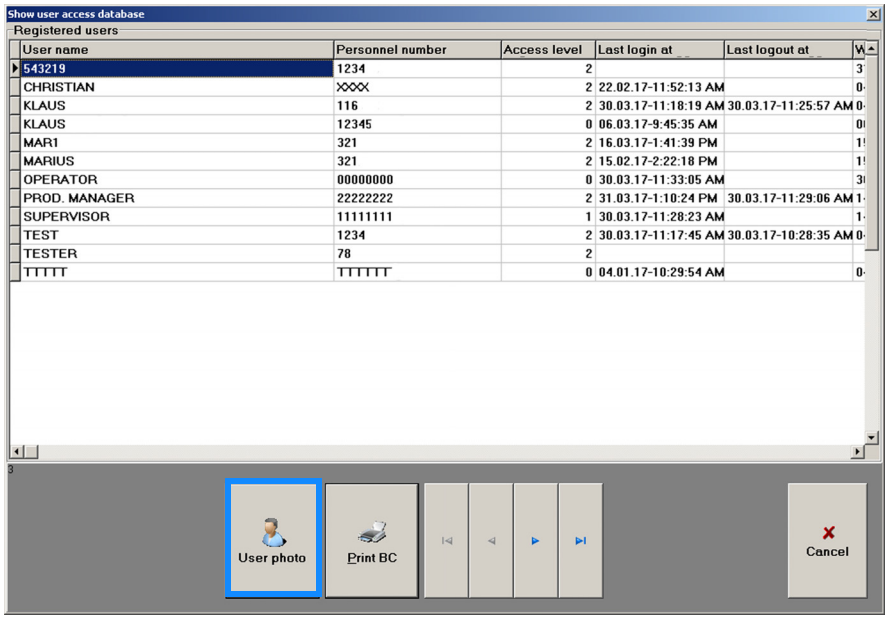
User images are stored in the `SABSoft/SystemDB` directory.
The images must be in JPEG format and have a size of 150 KB or less.

To store an image for a created user:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the register screen (🕮 *p. 73*).
3. Press the **Show users** button.

↳ The display switches to:

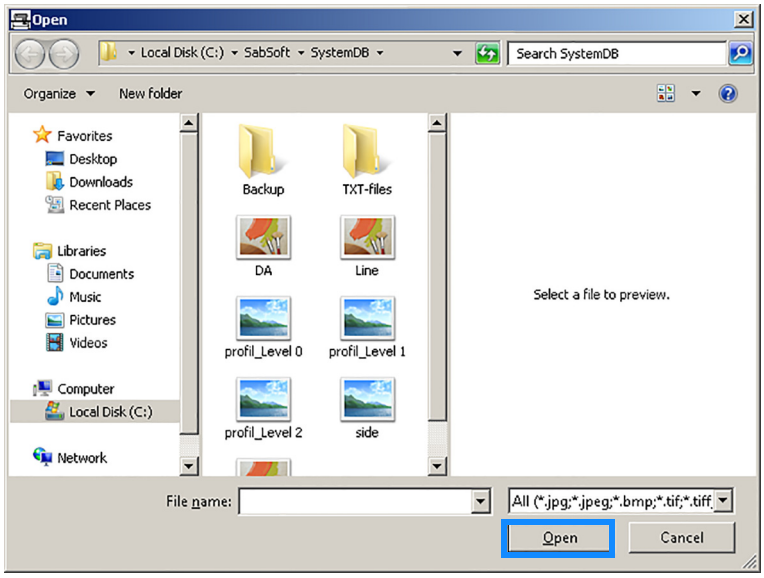
Fig. 78: Storing a user photo (1)



4. Press the **User photo** button.

↳ The display switches to:

Fig. 79: Storing a user photo (2)



5. Select the desired user photo file.
6. Press the **Open** button.

↳ The user image is loaded.

From now on, the user image will appear on the main screen and on the register screen as well as during sewing.

5.3.5 Creating a new user

Only users with security level **2** can create new users.

Depending on the equipment of the machine, new users can be created either by means of fingerprint detection or by access code detection.
This type of user detection cannot be changed at a later time.

Information

If a fingerprint sensor has been connected and activated, new users can only be created with the help of fingerprint detection.

Creating a new user using access barcode detection

Information

The length of the card barcode must have already been defined.

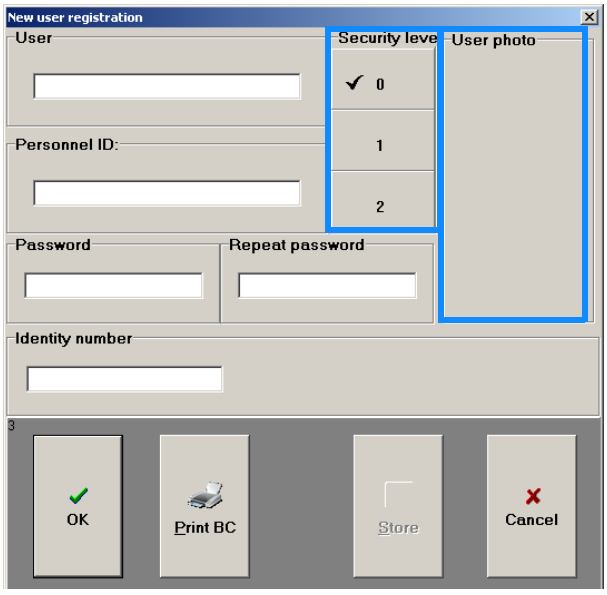
The login system only recognizes barcode type 128.
It is not possible to verify the content of the access barcode with the hand scanner at a later time.

To create a new user:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the register screen (📖 *p. 73*).
3. Press the **New** button.

↳ The display switches to:

Fig. 80: Creating a new user (1)



4. Enter **User name**, **Personnel number** and **Password** into the input fields of the same name.
5. To define the desired security level for the new user, press the **0**, **1** or **2** button.

↳ The check mark on the button indicates which security level has been selected (in this case, **0**).

6. To store a user image, press the **User photo** button.

Information

The user photo can also be stored at a later time (📖 *p. 83*).

7. Press the **Print BC** button.

↳ The barcode required to log in the new user is printed out.

8. Log in the new user using the hand scanner (📖 *p. 76*).

↳ Once the access barcode has been scanned, an *Identity number* will appear in the input field of the same name.

9. Confirm with **OK**.

↳ The information for the new user is saved.

10. Press the **Save** button.

↳ The new user has been created using access barcode detection.

Creating a new user using fingerprint detection

Information

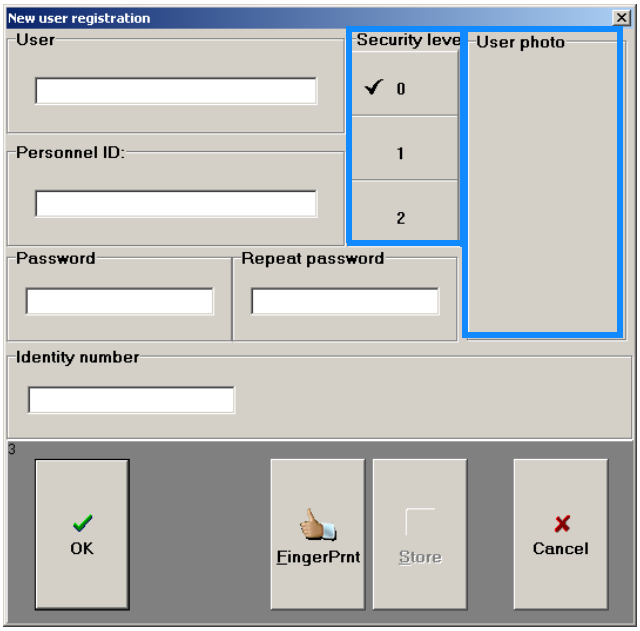
To allow a new user to be created with the help of fingerprint detection, the fingerprint scanner must have already been set up. This means that the fingerprint scanner MUST be connected and activated in the software.

To create a new user using fingerprint detection:

1. Log in with security level **2**.
2. Open the register screen (📖 *p. 73*).
3. Press the **New** button.

↳ The display switches to:

Fig. 81: Creating a new user (2)



4. Enter **User name**, **Personnel number** and **Password** into the input fields of the same name.
5. To define the desired security level for the new user, press the **0**, **1** or **2** button.

↳ The check mark on the button indicates which security level has been selected (in this case, **0**).

6. To store a user image, press the **User photo** button.

Information

The user photo can also be stored at a later time 📖 *p. 83*.

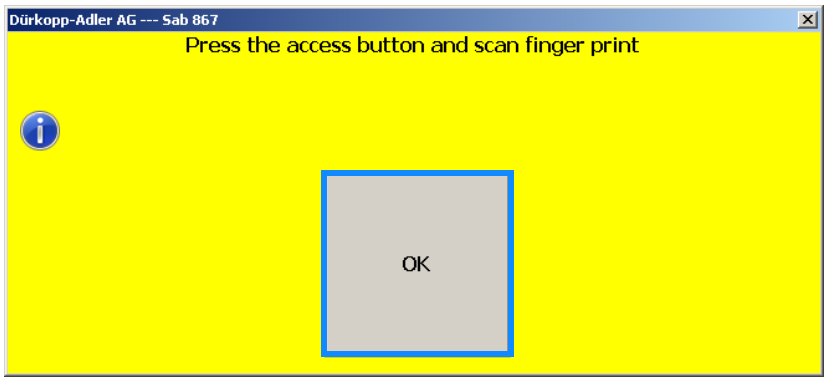
The fingerprint must be immediately linked to a user profile as it cannot be added later once the user has been set up.

---

7. Press the **FingerPrnt** button.

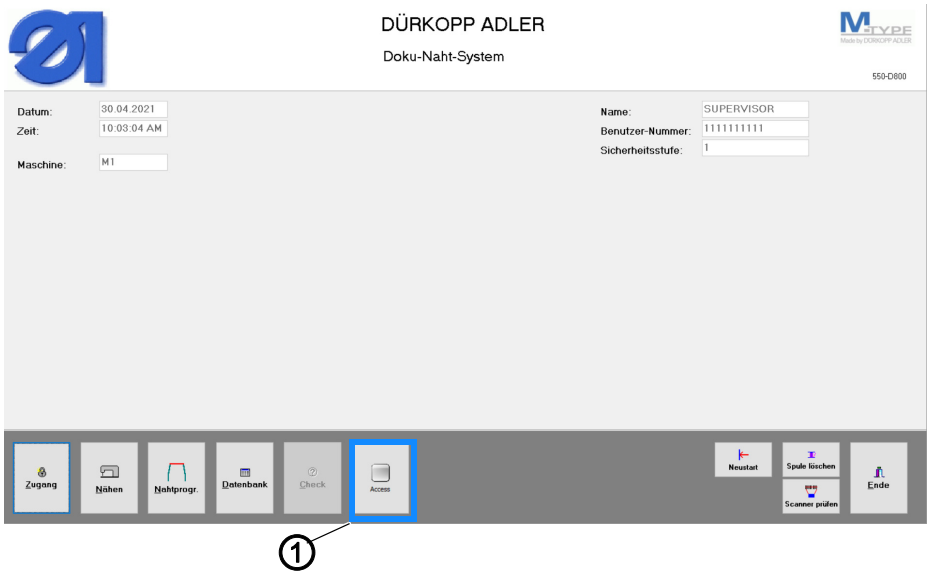
↳ The display switches to:

Fig. 82: Creating a new user (3)



8. Confirm with **OK**.

Fig. 83: Creating a new user (4)



(1) - Button

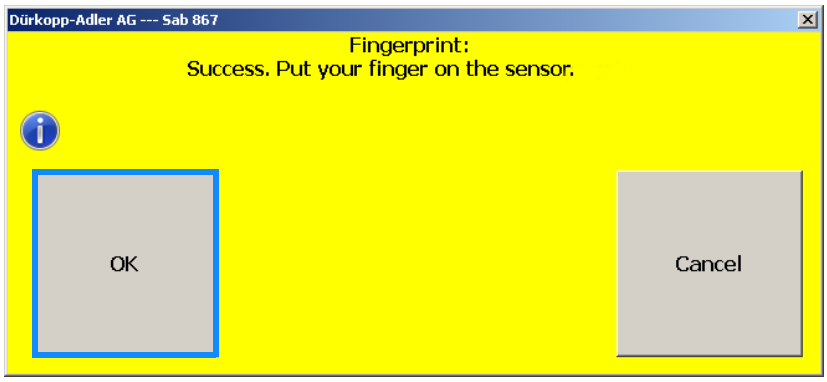
9. BRIEFLY click the **Access** (1) button with the mouse.

Information

A LONG press on the **Access** button with the mouse will start the login procedure using the hand scanner.

↳ The display switches to:

Fig. 84: Creating a new user (5)



10. Confirm with **OK**.

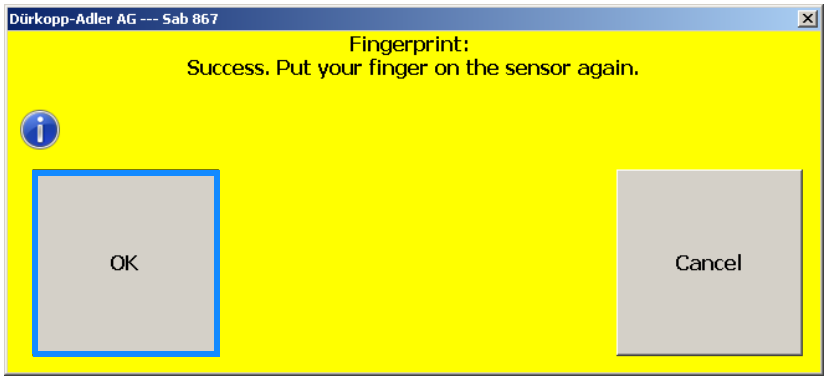
Fig. 85: Creating a new user (6)

(2) - Fingerprint sensor *(3) - Fingerprint scanner*

11. Place your finger tip on the fingerprint sensor (2) for approximately 3 seconds.

↳ The display switches to:

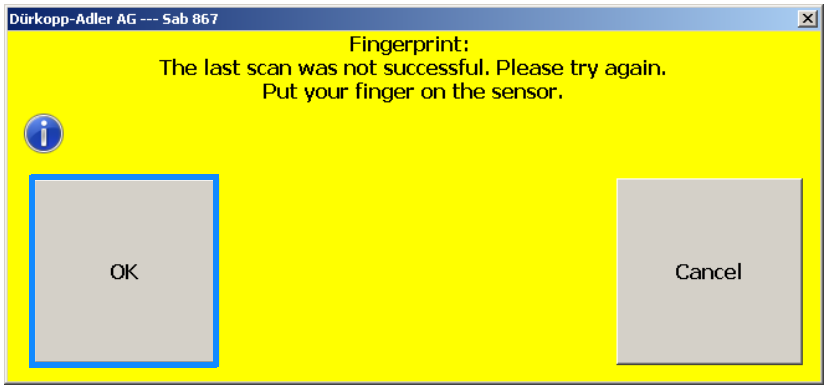
Fig. 86: Creating a new user (7)



Information

If the fingerprint is not detected at all or only in part, the following error message will be displayed:

Fig. 87: Creating a new user (8)



This error message is of no consequence. You can scan your fingerprint as many times as necessary until it has been detected successfully 3 times. The process does not have to be canceled.

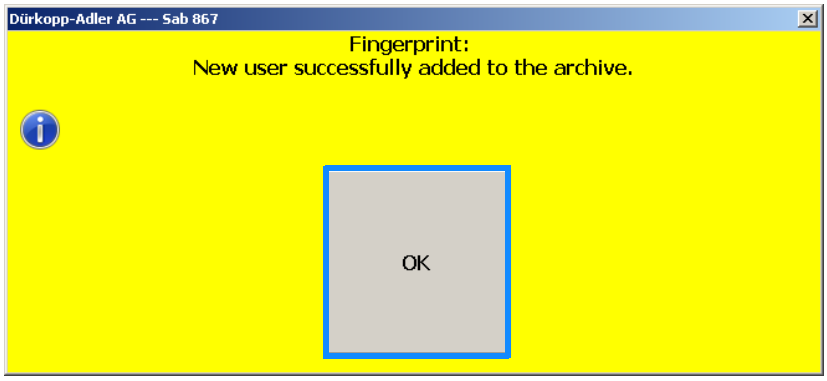
12. Confirm with **OK**.
13. Place your finger tip on the fingerprint sensor (2) for approximately 3 seconds.

↳ The display switches again to one of the two displays.

14. Confirm with **OK**.
15. Place your finger tip on the fingerprint sensor (2) for approximately 3 seconds.

↳ After 3 successful scans, the display will switch to:

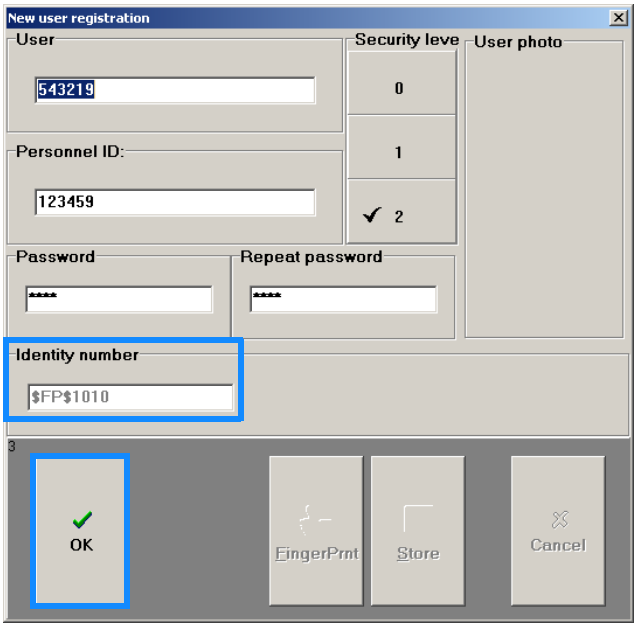
Fig. 88: Creating a new user (9)



16. Confirm with **OK**.

↳ An *Identity number* will appear automatically in the input field of the same name.

Fig. 89: Creating a new user (10)



17. Confirm with **OK**.
↳ The information for the new user is saved.
18. Press the **Save** button.
↳ The new user has been created using fingerprint detection.

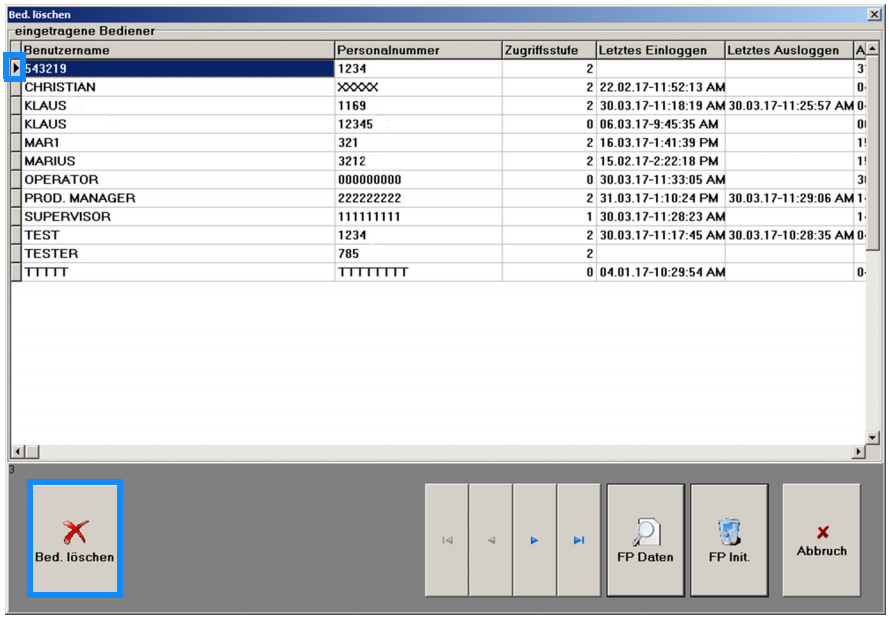
5.3.6 Deleting users

Only users with security level **2** can delete users.

To delete a user:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the register screen (📖 *p. 73*).
3. Press the **Delete** button.
↳ The display switches to:

Fig. 90: Deleting users (1)



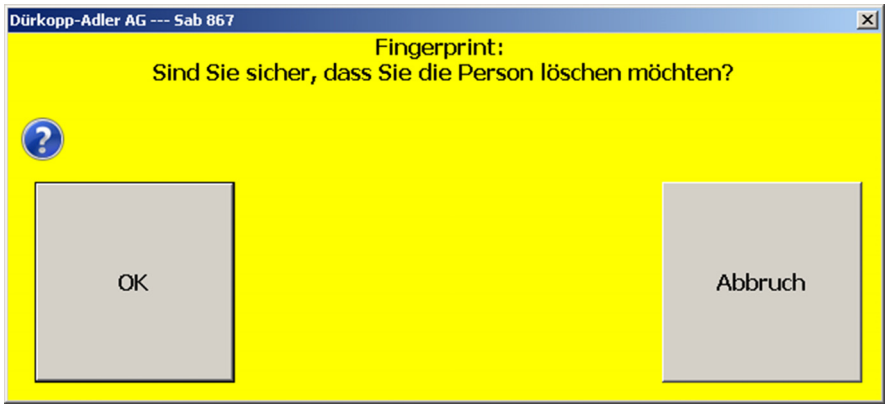
4. Select the user you wish to delete.

↳ The arrow in the first column on the left indicates which user is currently selected.

5. Press the **Delete user** button.

↳ The display switches to:

Fig. 91: Deleting users (2)



6. Confirm with **OK**.

↳ The user has been deleted.

5.3.7 Deleting the fingerprint database

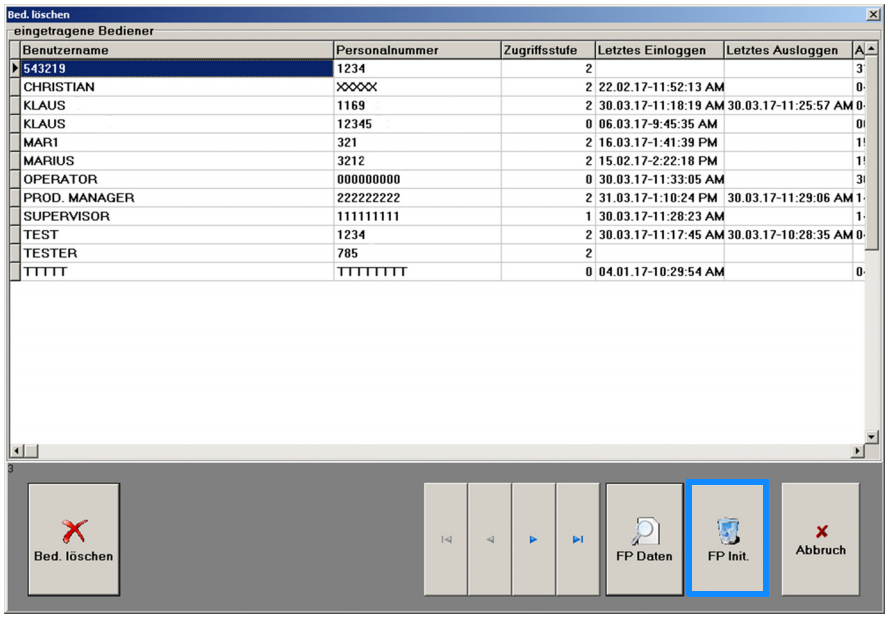
It is possible to delete the fingerprint database completely. User access by fingerprint detection will then no longer be possible.

To delete the fingerprint database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the register screen (📖 *p. 73*).
3. Press the **Delete** button.

↳ The display switches to:

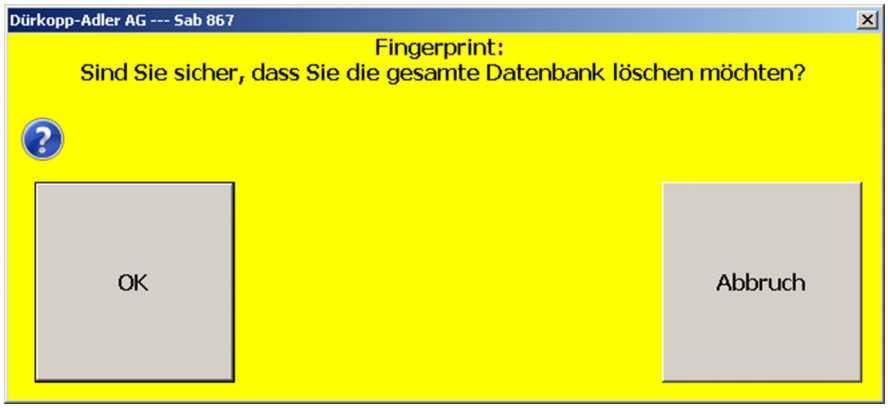
Fig. 92: Deleting the fingerprint database (1)



4. Press the **FP Init.** button.

↳ The display switches to:

Fig. 93: Deleting the fingerprint database (2)



5. Confirm with **OK**.

↳ The fingerprint database has been deleted.

5.4 Seam record sets

The display Seam record sets allows user with security levels **1** and **2** to execute the following functions:

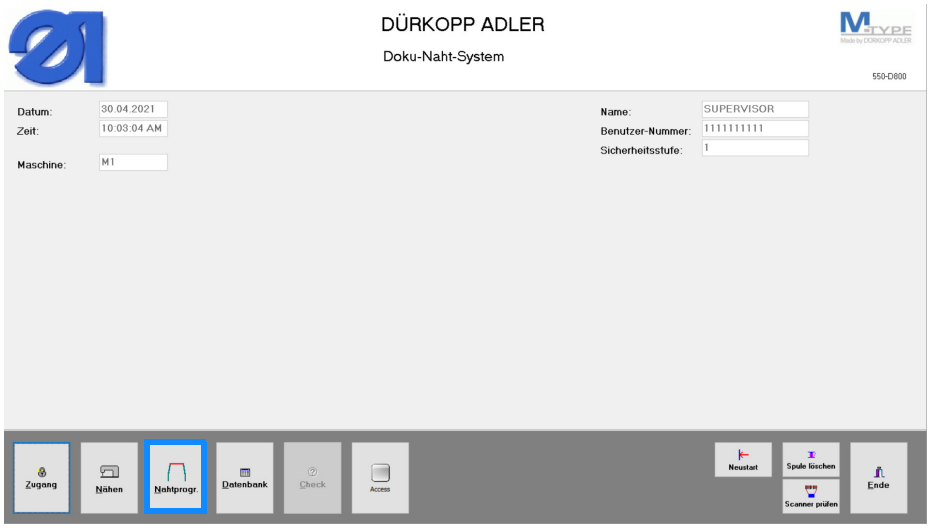
Button	Function
New seam record set	Create a new seam record set 📖 *p. 95*
Edit seam parameter record	Edit seam record sets 📖 *p. 97*
Copy seam record	Copy seam record sets 📖 *p. 113*
Delete seam record sets	Delete seam record sets 📖 *p. 114*
Change thread in seam records	Change / re-define the threads to be used for several seam record sets 📖 *p. 116*
Export seam record	Export individual seam record sets 📖 *p. 117*
Import seam record	Import individual seam record sets 📖 *p. 117*

5.4.1 Opening the *Seam record sets* display

To open the *Seam record sets* display:

1. Log in with security level **1** or **2** (📖 *p. 75*).

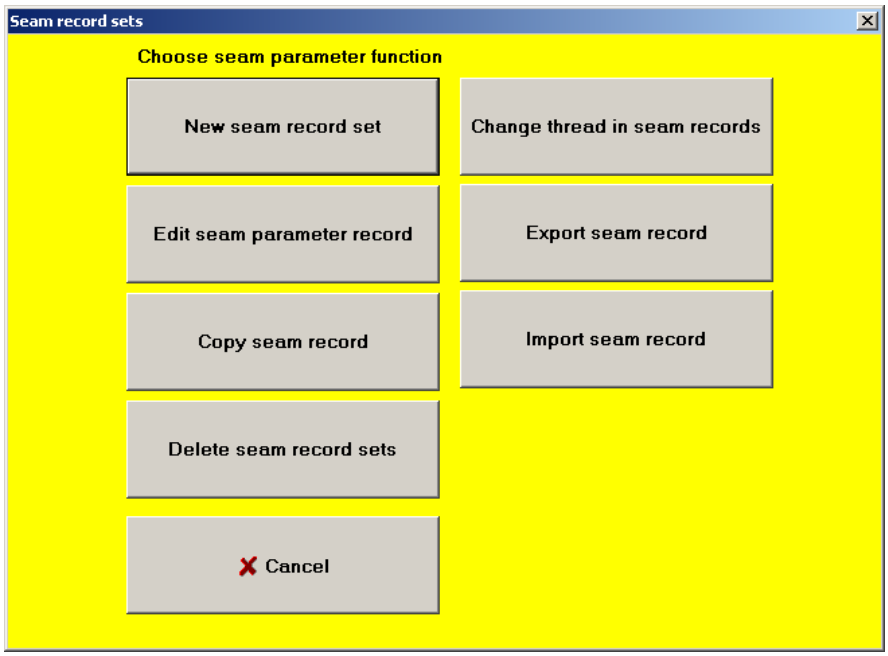
Fig. 94: Opening the Seam record sets display (1)



2. Press the **Seam record sets** button on the main screen.

↳ The display switches to:

Fig. 95: Opening the Seam record sets display (2)



5.4.2 Creating a new seam record set

You can create up to 999 seam record sets for the machine. Only users with security levels **1** and **2** can create new seam record sets.

Important

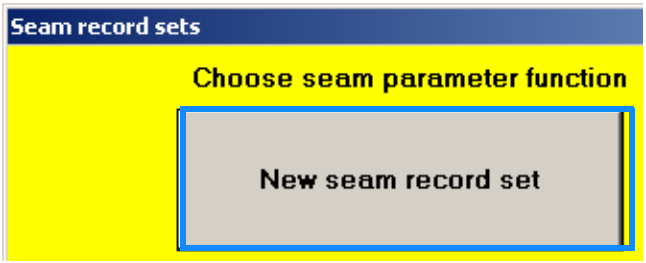
The ID of the new seam record set must show up in the barcodes parts primary of the sewing material. Otherwise, it will not be possible to assign the correct seam record set automatically by scanning the barcodes parts primary at the beginning of the sewing process.

To create a new seam record set:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the `Seam record sets` display (📖 *p. 94*).

↳ The display switches to:

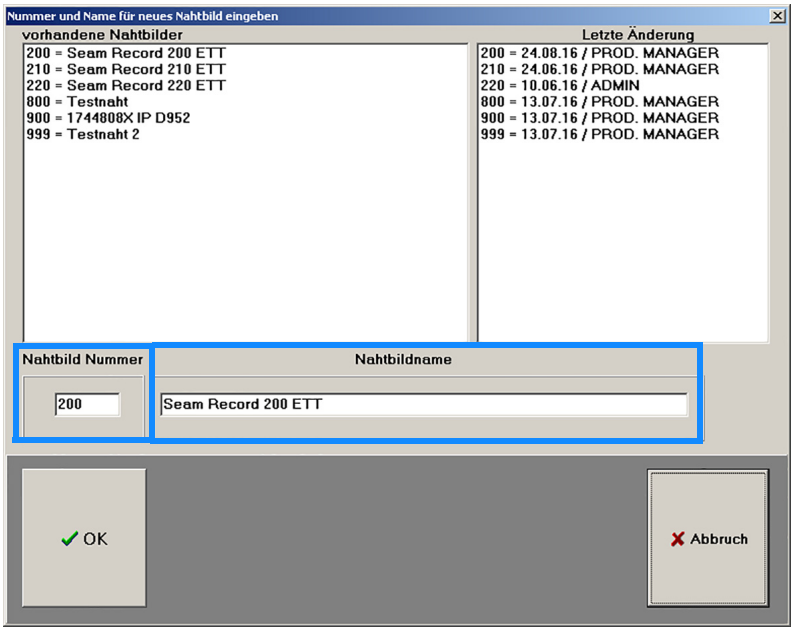
Fig. 96: Creating a new seam record set (1)



3. Press the **New seam record set** button.

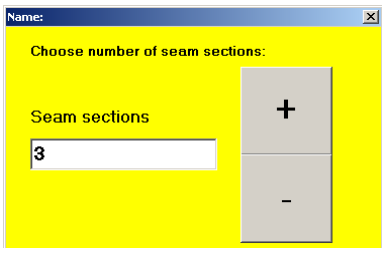
↳ The display switches to:

Fig. 97: Creating a new seam record set (2)



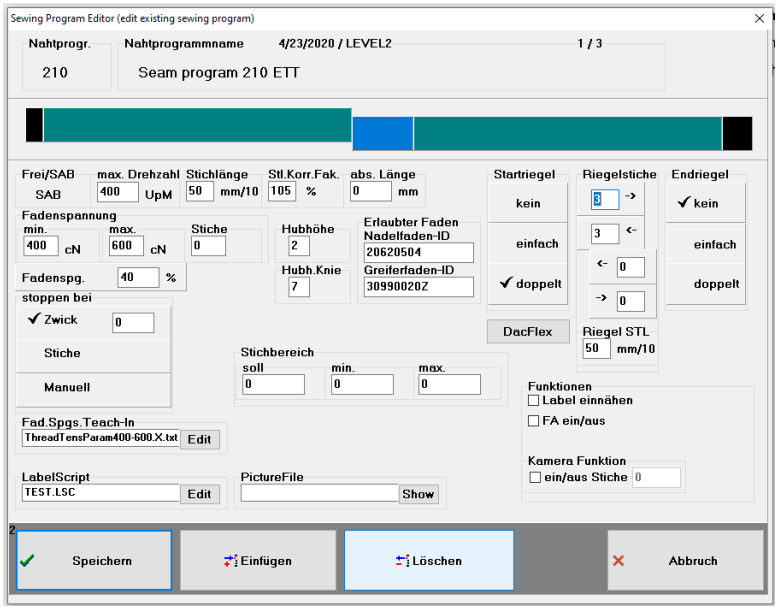
4. Press the **Seam par. rec. ID** input field.
↳ An input window appears.
5. Enter the new seam record set ID.
6. Confirm with ↵.
7. Press the **Seam record set name** input field.
↳ An input window appears.
8. Enter the new seam record set name.
9. Confirm with ↵.
↳ The display switches to:

Fig. 98: Creating a new seam record set (3)



10. Enter a seam section: press +.
11. Delete a seam section: press -
12. Confirm with **OK**.
↳ The display switches to (📖 *p. 97*):

Fig. 99: Creating a new seam record set (4)



The new seam record set has been created with preset values and can now be adapted.

5.4.3 Editing a seam record set (*Edit seam parameter record*)

The following settings can be edited on the *Seam record set* display:

Input field	Function
Free/SAB	Indicates if the seam section is free or documented (SAB) 🕮 *p. 100*
max. speed	Maximum speed in the current seam section 🕮 *p. 101*
Stitch length	Stitch length in the current seam section 🕮 *p. 101*
Stl. corr. fac.	Stitch length correction depending on the material
Total length	Space between two notches on the sewing material
Thread tension minimum maximum Stitches	Tolerance range of the thread tension (define minimum and maximum values) and the number of tolerance stitches that are permitted in case of deviations before an error message will be displayed 🕮 *p. 102*
Thread tens.	Current feed value in % (for ETT only) 🕮 *p. 102*
Seam section switch via	notch detection, stitch counting or manual operation (pedal set to position -2) 🕮 *p. 104*
Thread.Tens.Teach-In	Selection of a teach-in file (for ETT only) 🕮 *p. 107*
LabelScript	Selection of a label script file 🕮 *p. 107*

Input field	Function
PictureFile	Selection of an image file shown at the beginning if this seam record set is supposed to be sewn. 🕮 *p. 108* The image can, for instance, show the pieces to be sewn or a different, specific work instruction. The image MUST be confirmed with **OK** at the beginning. Otherwise, it will not be possible to sew the seam record set.
Stroke	Stroke of the alternating sewing feet 🕮 *p. 103*
Stroke knee	Stroke upon activation of the knee button (quick stroke adjustment) 🕮 *p. 104*
Released thread Needle thread ID Bobbin thread ID	The needle / bobbin thread ID is used to define which thread is permitted for the seam record set 🕮 *p. 178*
Text on printed label	Define the text that will be printed on the end label. This option is only available in documented seam sections. 🕮 *p. 163*
Start bartack	Select if a single or double start bartack or no start bartack will be created for the current seam section 🕮 *p. 108* et sqq
Tack stitches	Number of tack stitches (forward/backward) 🕮 *p. 108*
End bartack	Select if a single or double end bartack or no end bartack will be created for the current seam section 🕮 *p. 108* et sqq
Tack STL	Stitch length of the start and end bartack 🕮 *p. 109*
Sew label on	If activated, this function will activate the barcode scanner of the end label in this seam section. The end label barcode is supposed to be scanned, and the label is supposed to be sewn in at this seam section. 🕮 *p. 109*
Thr. cutter on/off	The thread cutter cuts the thread at the end of the current seam section 🕮 *p. 110*
Foot lift on/off	Manual sewing foot lift at a sewing stop in the seam possible/ not possible 🕮 *p. 110*
DACflex	Set the parameters of the DACflex 🕮 *p. 112*

The factory setting defines the basic settings for all seam sections. The settings can be changed individually for each seam section.

The bars of the documented seam sections are set apart from the non-documented seam sections by a different color (🕮 *p. 100*).

The tallest bar in the row represents the present seam section in which settings are currently being edited.

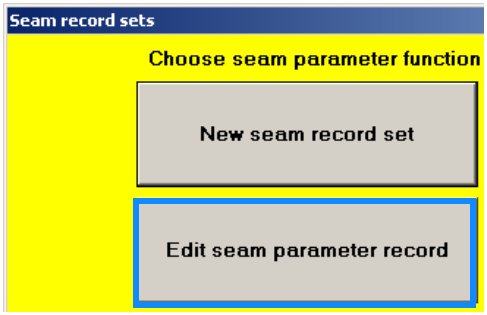
Opening the *Seam record set* display

To open the *Seam record set* display:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the *Seam record sets* display (📖 *p. 94*).

↳ The display switches to:

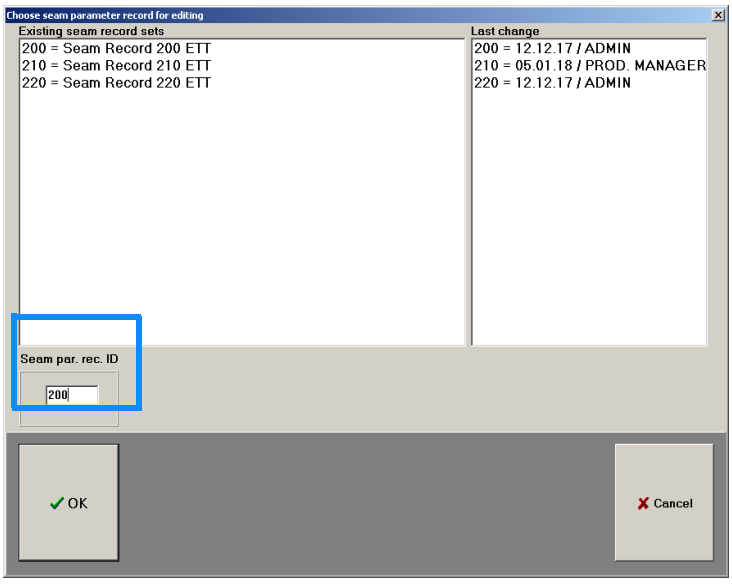
Fig. 100: Opening the Seam record set display (1)



3. Press the **Edit seam parameter record** button.

↳ The display switches to:

Fig. 101: Opening the Seam record set display (2)



4. Press the **Seam par. rec. ID** input field.

↳ An input window appears.

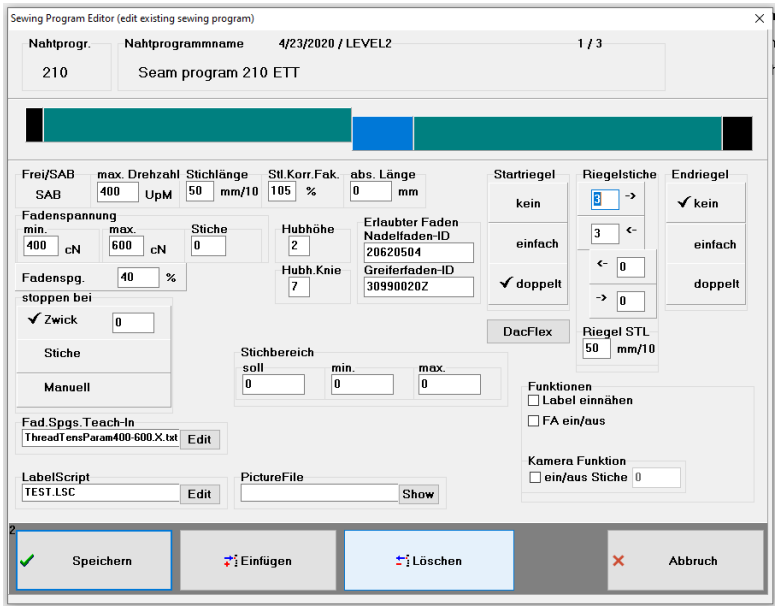
5. Enter the ID of the desired seam record set.
6. Confirm with **OK**.

↳ The input window disappears, and the desired seam record set ID is displayed in the input field.

7. Confirm with **OK**.

↳ The following display appears:

Fig. 102: Opening the Seam record set display (3)



Here, you can edit all settings of a seam record set.

Selecting a seam section

You can save different settings for each individual seam section.

The selected seam section will always be arranged slightly higher than the other sections. In the example below, the first seam section has been selected. The short black bar at the beginning of the seam section indicates that this seam section begins with a start bartack (📖 *p. 108*).

To select a seam section:

1. Open the `Seam record set` display (📖 *p. 99*).

Fig. 103: Selecting a seam section

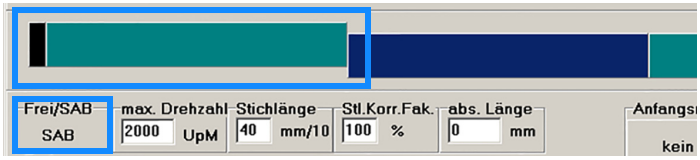
2. Press the corresponding colored bar to select the desired seam section.

Defining a free seam section

To define a free seam section:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Select the documented seam section you wish to convert into a free seam section (📖 *p. 100*).

Fig. 104: Defining a free seam section



3. Press the **SAB** button.

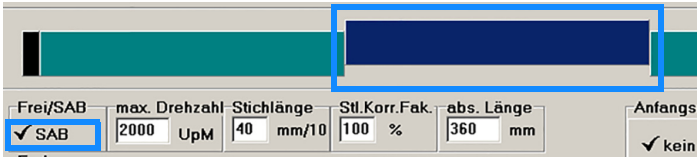
↳ The checkmark on the **SAB** button turns off, and the seam section is no longer displayed as a documented seam section.

Defining a documented seam section

To define a documented seam section:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Select the free seam section you wish to convert into a documented seam section (📖 *p. 100*).
3. Press the **SAB** button.

Fig. 105: Defining a documented seam section



↳ A checkmark on the **SAB** button, and the seam section is displayed as a documented seam section.

Setting the speed

To set the desired speed:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **max. speed** input field.

↳ An input window appears.

3. Enter the desired speed.
4. Confirm with ↵.

Adjusting the stitch length

To set the desired stitch length:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Stitch length** input field.

↳ An input window appears.

3. Enter the desired stitch length (mm/10).

4. Confirm with ↵.

Adjusting the stitch length correction factor

Depending on the sewing material, the stitch length may not be implemented 100% (e.g. when sewing thicker fabrics).

In this case, you can slightly increase the percentage of the stitch length to actually achieve 100% of the entered stitch length.

To adjust the stitch length correction factor:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Determine how many mm of the desired stitch length have actually been implemented.
3. Calculate the percentage difference between the actual stitch length and the desired stitch length.
4. Add the calculated percentage to 100%.

↳ This result represents the stitch length correction factor.

5. Press the **Stl.corr.fac.** input field.

↳ An input window appears.

6. Enter the calculated stitch length correction factor, e.g. 110%.
7. Confirm with ↵.

Adjusting the thread tension

The mechanical thread tension requires that the values be calculated in the *Thread tension* test menu. To set up the electronically regulated thread tension, a tolerance range is defined for each seam section.

The machine uses the electronic monitor to regulate the thread tension automatically and ensure that the thread tension remains in the medium tolerance range. The values required for this regulation are previously calculated during the teach-in procedure.

To adjust the tolerance range for the mechanical thread tension:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Thread tension min.** input field.

↳ An input window appears.

3. Enter the desired lowest thread tension (cN).
4. Confirm with ↵.
5. Press the **Thread tension max.** input field.

↳ An input window appears.

6. Enter the desired highest thread tension (cN).
7. Confirm with ↵.

Information

The thread tension is monitored for every stitch during the documented seam section. As soon as the thread tension falls outside the tolerance range, the sewing process stops, and an error message is displayed.

If the seam record set is linked to a teach-in file, the data stored in the teach-in file will overwrite the manually entered data.

Linking a thread tension teach-in file

A thread tension teach-in file is used to store all important data necessary to set the tolerance for the electronically regulated thread tension (for ETT only). It is possible to link such a teach-in file to every seam section.

A different teach-in file can be linked to each documented/free seam section.

To link a teach-in file to a seam section:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Thread.Tens.Teach-In** input field.

↳ The directory holding the teach-in files that are stored on the control panel opens.

3. Select the desired teach-in file.
4. Confirm with **OK**.

You can view the stored values:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Edit** button at *Thread.Tens.Teach-In*.

↳ The values stored in the teach-in file are displayed.

Information

If the seam section is linked to a teach-in file, the data stored in the teach-in file will overwrite the manually entered data.

Adjusting the stroke

To set the desired stroke:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Stroke** input field.

↳ An input window appears.

3. Enter the desired stroke.
4. Confirm with ↵.

Adjusting the switchable stroke

To set the stroke that can be switched on/off using the knee button:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Stroke knee** input field.

↳ An input window appears.

3. Enter the desired stroke.
4. Confirm with ↵.

Information

The maximum stroke is 9 mm.

This switchable stroke can be used in push-to-run or hold-to-run mode (📖 *Operating Instructions*).

Defining a seam section change

The machine has different ways to detect when a seam section is fully sewn and a new seam section begins.

Ways to detect a seam section switch	Function
Notch	When using visual detection, the machine will detect visual markings at the edge of the sewing material. The optimum size of a notch is 10 x 10 mm. A seam section starts after each marking. **This is the recommended setting.**
Stitches	When set to this option, the machine counts the number of stitches for each seam section. If, for instance, 100 stitches have been set, the next seam section will begin automatically after 100 stitches.
Manual	The manual setting requires that the user themselves interrupt the sewing process when a seam section has been completed. Every interruption during sewing at which the pedal is set to position -2 will be detected by the machine as a seam section switch.

To set the seam section switch via visual detection:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Notch** button.

↳ The checkmark confirms the selection.

3. Press the **Notch** input field.
4. Enter the desired number of stitches for which notch detection will be deactivated.

Information

If you entered, for instance, 20 as the number of stitches, the sensor will, starting with the 1st notch, be deactivated for 20 stitches. The sensor will remain inactive until this number has been reached.

This function may prove useful, for instance, if you sew a bartack prior to a documented seam or sewing material that is particularly fluff or has particularly unclean edges.

5. Confirm with ↵.

To set the seam section switch via number of stitches:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Stitches** button.
↳ The checkmark confirms the selection.
3. Press the input field.
↳ The display switches to `Stitches`.
4. Enter the desired number of stitches.
5. Confirm with ↵.

To set the seam section switch via manual operation:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Manual** button.
↳ The checkmark confirms the selection.

Defining the length of the documented seam section

Here, you enter the length of the documented seam section in mm. It is advisable to define the length of the documented seam section for a seam record set. The length is required, for instance, whenever the exact stitch length needs to be specified in the data protocol or this information is supposed to be printed on the end label.

While possible, defining the length of the free seam sections is of less importance.

To set the length of the documented seam section:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Total length** input field.
↳ An input window appears.
3. Enter the desired length (mm).
4. Confirm with ↵.

Defining threads

The permissible needle and hook threads must be defined for each seam record set using IDs. The ID holds all important information about the threads.

The machine checks at every start which needle thread and which hook thread is currently being used. When a sewing process is started, the machine will compare needle and hook thread with those defined in the seam record set. The machine will detect if the needle and hook thread fitted on the reel stand do not match the seam record set. An error message appears. The sewing process cannot be started.

To set the needle thread and hook thread IDs:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Released thread/needle thread ID** input field.

↳ The display switches to *Released needle thread (ident. no.)*.

3. Enter the desired ID.
4. Confirm with ↵.

↳ The *Released bobbin thread (ident. no.)* input window appears.

5. Enter the desired ID.
6. Confirm with ↵.

Important

The thread ID is a very important piece of information for the seam record set; it is essential that it be stored in the seam record set. This is the only way to ensure that needle and hook threads matching the seam record set are used at the beginning of the sewing process.

Defining the text on the end label

Here, you can define the text that will be printed on the end label.

To enter the text:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Printed label Text** input field.

↳ An input window opens.

3. Enter the desired text.
4. Confirm with ↵.

Information

This label is only available in a documented seam section. Another option is to link a label script file to the seam record set that contains all information about the end label (📖 *p. 189*).

Linking a teach-in file

A thread tension teach-in file is used to store all data necessary to set the tolerance for the electronically regulated thread tension (for ETT only). This teach-in file is created (📖 *p. 181*), stored on the control panel and can be linked to each seam record set.

To link a teach-in file to a seam record set:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **Thread.Tens.Teach-In** input field.

↳ The directory holding the teach-in files that are stored on the control panel opens.

3. Select the desired teach-in file.
4. Confirm with **OK**.
5. To bring up and view the settings, press the **Edit** button.

Linking a label script file

Stored in a label script file is all relevant data about the end label. Such a label script file can be created directly in the software (📖 *p. 159*) or using the Label Creator (📖 *p. 189*) and then saved on the control panel before being linked to each seam record set.

To link a label script file to a seam record set:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Press the **LabelScript** input field.

↳ The directory holding the label script files that are stored on the control panel opens.

3. Select the desired label script file.
4. Confirm with **OK**.
5. To bring up and view the settings, press the **Edit** button.

Information

If a label script file is linked to a seam record set, all other settings regarding the end label will be overwritten by the information stored in the file.

Linking a picture file

Each seam record set can be linked to an image (picture file).

If the machine is used to process different sewing materials, e.g. driver and passenger seat covers, the corresponding seam program can be linked to an image of the driver / passenger seat cover. This image must be confirmed with **OK** before sewing starts as the machine will otherwise not be able to sew the seam record set.

The image of the seam record set will be displayed at the start of the sewing process.

To link an image to a seam record set:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **PictureFile** input field.

↳ The directory holding the images that are stored on the control panel opens.

3. Select the desired image.
4. Confirm with **OK**.

Setting start and end bartack

Here, the start and end bartack are defined in detail. There are three options each:

- no start/end bartack
- single start/end bartack
- double start/end bartack

Setting no start/end bartack

To specify that there will be no start/end bartack:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **no** button below the heading *Start/end tack*.

   The top two entries under the heading *Tack stitches* are reset to **0** for the start/end bartack.

Setting a single start/end bartack

To set a single start/end bartack:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **single** button below the heading *Start/end tack*.
3. Enter the desired number of stitches.

Setting a double start/end bartack

To set a double start/end bartack:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **double** button below the heading *Start/end tack*.
3. Enter the desired number of stitches.

Adjusting the bartack stitch length

Here, you set the stitch length of start and end bartack.

Information

The shorter the stitch length of start and end bartack, the more stable the bartack.

To set the desired stitch length of the bartack:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Press the **Tack STL/mm/10** input field.
   ↳ The display switches to *Stitch length Tack (mm/10)*.
3. Enter the desired stitch length (mm/10).
4. Confirm with ↵.

Sewing in the end label

The end label is used to assign a unique production number to the fully processed sewing material. The barcode is read via the end label scanner, revealing, for instance, if an error occurred during the sewing process.

To switch on the function *Sew label on*:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Select **Sew label on**.
   ↳ If the checkmark is set, the function *Sew label on* is enabled.
   ↳ If the checkmark is not set, the function *Sew label on* is disabled.

Switching the thread cutter on/off

If the thread cutter is switched on in a seam section, the thread is cut at the end of the current seam section. The machine starts sewing the next seam section with a new seam.

The thread cutter can be switched on or off for each free seam section. If the cutter is switched on, the machine begins sewing the next seam section with a new seam.

To switch the thread cutter on or off:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Select the seam section for which the thread cutter is supposed to be switched on or off.
3. Switch **Thr. cutter on/off** on or off.

↳ If the checkmark is set, the thread cutter is switched on.

↳ If the checkmark is not set, the thread cutter is switched off.

Defining the warning stitch count

A warning stitch count can be defined for the last seam section into which the end label is supposed to be sewn. If the end label barcode was not scanned and the end label was not sewn in before the number of stitches warning is reached, the machine will stop and display a warning.

This function is intended to ensure that the last free seam section will not be completed without sewing in the end label. It is, therefore, advisable to define the warning stitch count in such a way that there will be enough space for the end label to be sewn in after the warning was displayed.

Switching foot lift for the documented seam section on/off

If the foot lift function is switched on for a documented seam section, the sewing feet can be lifted at a sewing stop. If the foot lift function is switched off, lifting the sewing feet manually in a documented seam section will not be possible

To switch the function *Foot lift* on/off:

1. Open the *Seam record set* display (📖 *p. 99*).
2. Select or deselect **Foot lift on/off**.

↳ If the checkmark is set, the sewing foot will be lifted at a sewing stop.

↳ If the checkmark is not set, the sewing foot will not be lifted at a sewing stop.

Adding a seam section

A seam record set is composed of at least 1 and of no more than 20 seam sections.
The seam sections can be defined as any number of free or documented seam sections.

Information

Seam sections can only be added as free seam sections. Not until it has been added will you be able to define if the seam section is supposed to remain free or become documented (📖 *p. 100*).

To add additional seam sections:

1. Open the `Seam record set` display (📖 *p. 99*).
2. Select the seam section after which you wish to add the new seam section.
3. Press the **Insert** button.

↳ The display switches to a confirmation prompt.

4. Confirm with **OK**.

↳ A new free seam section is added as an additional bar on the right next to the selected seam section.

Deleting a seam section

Seam sections can be deleted as needed.

To delete the selected seam section:

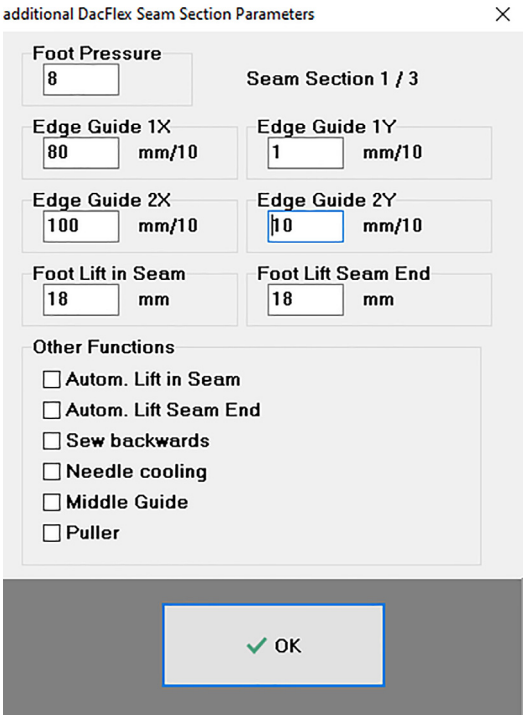
1. Open the `Seam record set` display (📖 *p. 99*).
2. Select the seam section you wish to delete.
3. Press the **Delete** button.

↳ The display switches to a confirmation prompt.

4. Confirm with **OK**.

Setting the DACflex parameters

Fig. 106: Editing a seam pattern



Parameters DACflex

Parameter	Explanation
Foot pressure	/
Edge guide	Setting option for two axles
Sewing foot lift	/
Other functions	Autom. Lift in Seam sewing foot is lifted automatically in the seam at a sewing stop
	Autom. Lift Seam end sewing foot is lifted automatically at the end of the seam
	Sewing backwards
	Needle cooling
	Seam Center Guide
	Puller

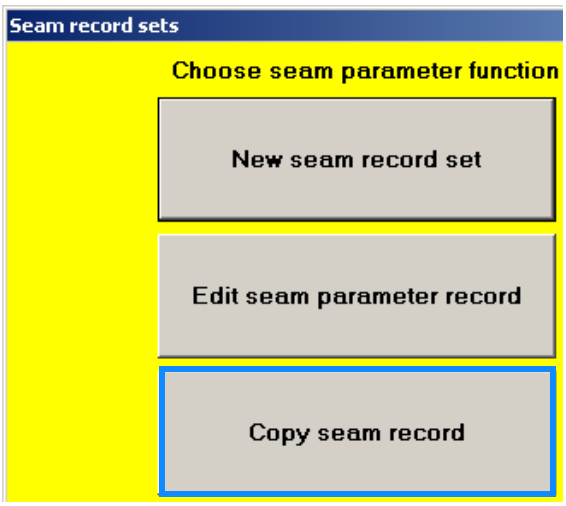
5.4.4 Copying a seam record set

To copy a seam record set:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the *Seam record sets* display (📖 *p. 94*).

↳ The display switches to:

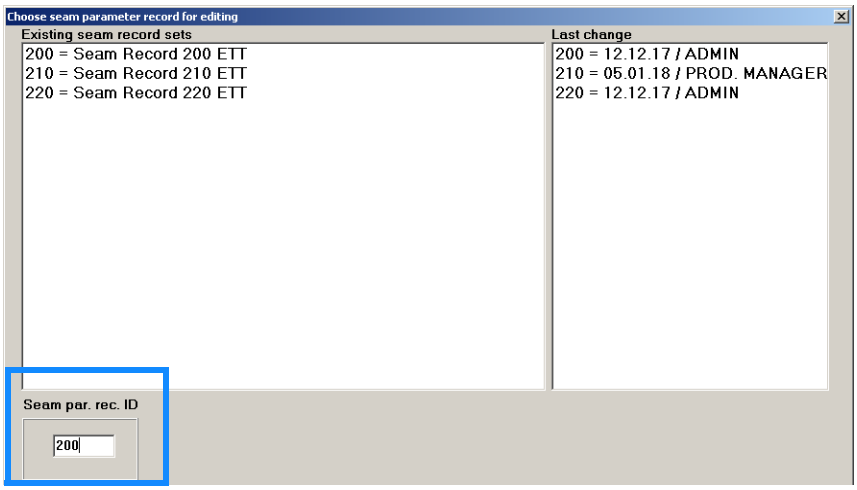
Fig. 107: Copying a seam record set (1)



3. Press the **Copy seam record** button.

↳ The display switches to:

Fig. 108: Copying a seam record set (2)



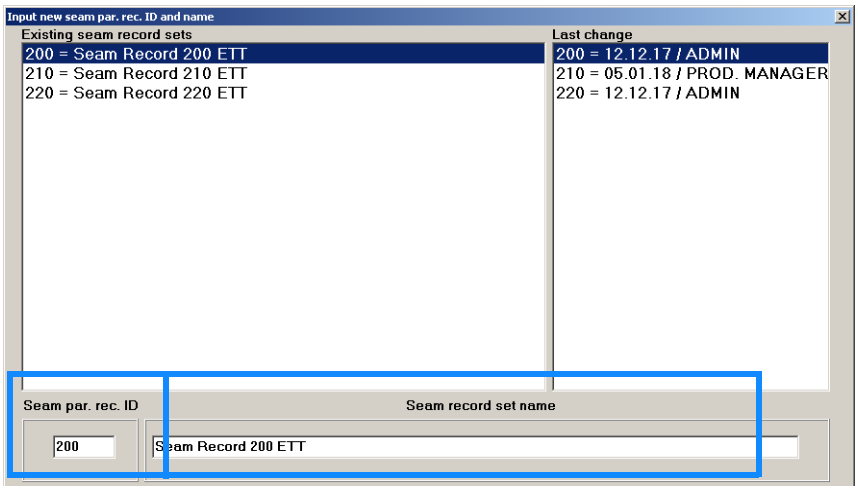
4. Press the **Seam par. rec. ID** input field.

↳ An input window appears.

5. Enter the ID of the seam record set you wish to copy.
6. Confirm with **OK**.

↳ The display switches to *Enter ID and name of new seam record set*:

Fig. 109: Copying a seam record set (3)



7. Press the **Seam par. rec. ID** input field.

↳ An input window appears.

8. Enter the desired seam record set ID.
9. Confirm with ↵.
10. Press the **Seam record set name** input field.

↳ An input window appears.

11. Enter the seam record set name.
12. Confirm with ↵.

↳ The display switches to a screen confirming that seam record set X has been copied to seam record set Y.

13. Confirm with **OK**.

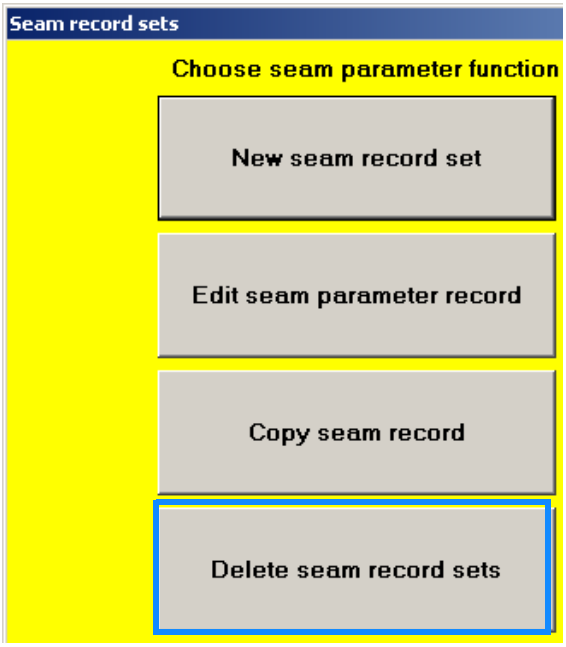
5.4.5 Deleting a seam record set

To delete a seam record set:

1. Log in with security level **1** or **2** (🕮 *p. 75*).
2. Open the `Seam record sets` display (🕮 *p. 94*).

↳ The display switches to:

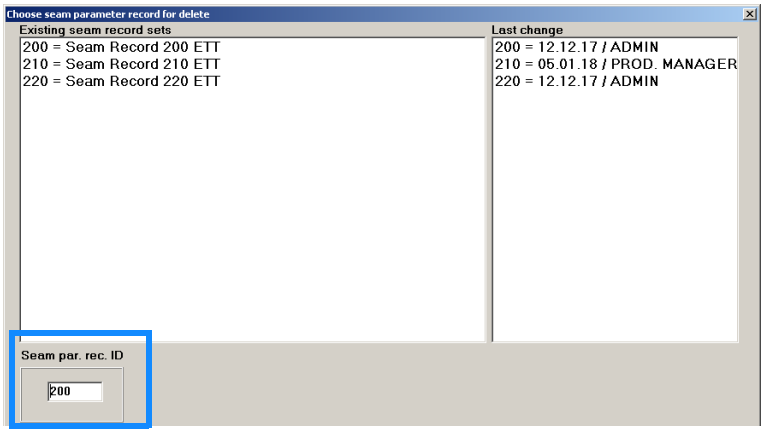
Fig. 110: Deleting a seam record set (1)



3. Press the **Delete seam record sets** button.

↳ The display switches to:

Fig. 111: Deleting a seam record set (2)



4. Press the **Seam par. rec. ID** input field.

↳ An input window appears.

5. Enter the ID of the seam record set you wish to delete.

6. Confirm with ↵.

↳ The display switches to a 2nd confirmation prompt.

7. Confirm with **OK**.

↳ The seam record set has been deleted successfully.

5.4.6 Changing the thread (*Change thread in seam records*)

A previously used thread can be replaced with a new thread. The function *Change thread in seam records* covers two steps:

- the new thread is registered with the system
- the new thread is linked to any number of seam record sets

Information

Here, you can link a new thread to any number of seam record sets without the need to edit each of these seam record sets separately.

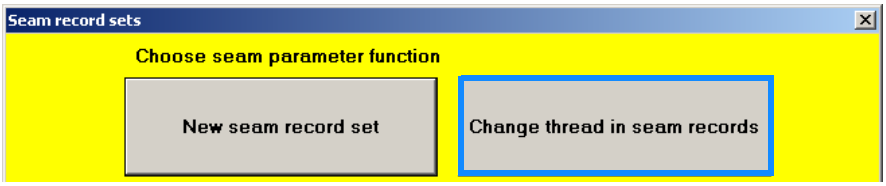
It is possible to change needle and hook threads.

To change a thread:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the *Seam record sets* display (📖 *p. 94*).

↳ The display switches to:

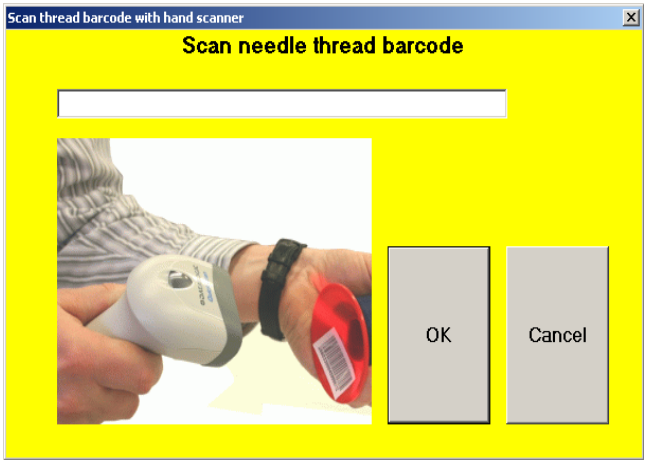
Fig. 112: Changing the thread (Change thread in seam records) (1)



3. Press the **Change thread in seam records** button.

↳ The display switches to:

Fig. 113: Changing the thread (Change thread in seam records) (2)



4. Scan the needle thread barcode on the needle thread reel.

5. Confirm with **OK**.

↳ The display changes.

6. Scan the hook thread barcode on the hook thread reel.

↳ An input window appears.

7. Enter the ID of the seam record sets for which you wish to change the thread (e.g. from 980 to 990).

5.4.7 Exporting a seam record set

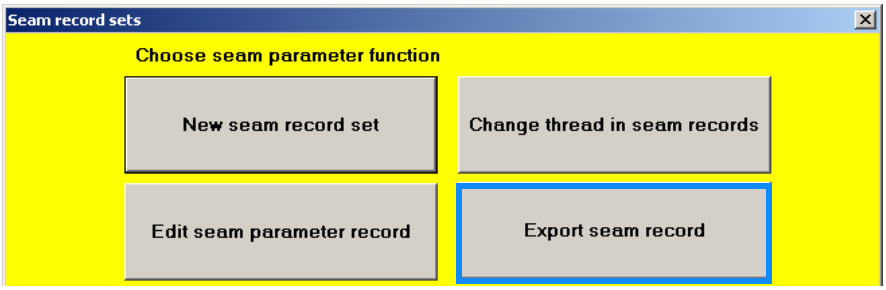
Seam record sets can be exported individually from a class 550-D800 and imported to another class 550-D800 machine. An import from a class 550-867 to a class 550-D800 can be performed as well.

To export individual seam records:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the `Seam record sets` display (📖 *p. 94*).

↳ The display switches to:

Fig. 114: Exporting a seam record set (1)



3. Press the **Export seam record** button.
4. Connect a USB key to the machine to which you wish to save the exported seam record.
5. Select the seam record you wish to export and save it to the USB key.
6. Log out the USB key at the control panel and disconnect it from the machine.

You can now import the exported seam record set to another machine of the 550-867 class (📖 *p. 117*).

5.4.8 Importing a seam record set

Seam record sets can be exported individually from a class 550-867 machine and imported to another class 550-867 machine.

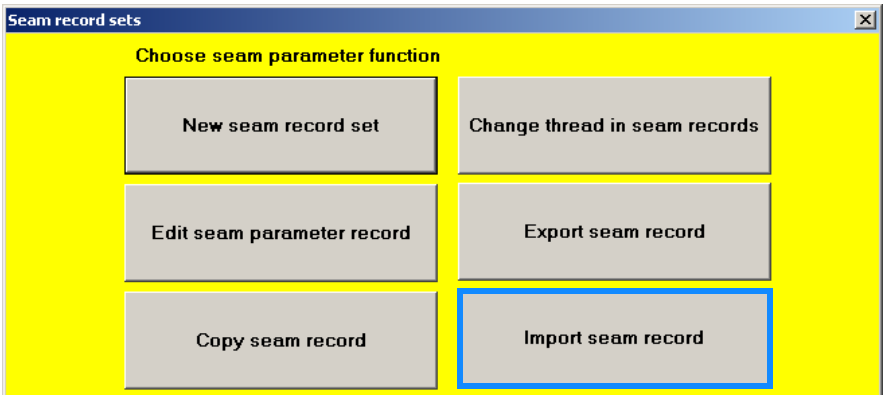
To import individual seam records:

1. Log in with security level **1** or **2** (📖 *p. 75*).

2. Open the `Seam record sets` display (📖 *p. 94*).

↳ The display switches to:

Fig. 115: Importing a seam record set (1)



3. Press the **Import seam record** button.
4. Connect the USB key to the machine that holds the seam record you wish to import.
5. Select on the USB key the seam record you wish to import and save it on the control panel.

You can now use the imported seam record on the machine.

5.5 Database

All tearing seams are documented (📖 *p. 261*). These protocol files are stored in the protocol database. A new protocol database will be created automatically for every new day.

You can use the **Database** button to display, copy and print these protocol databases.

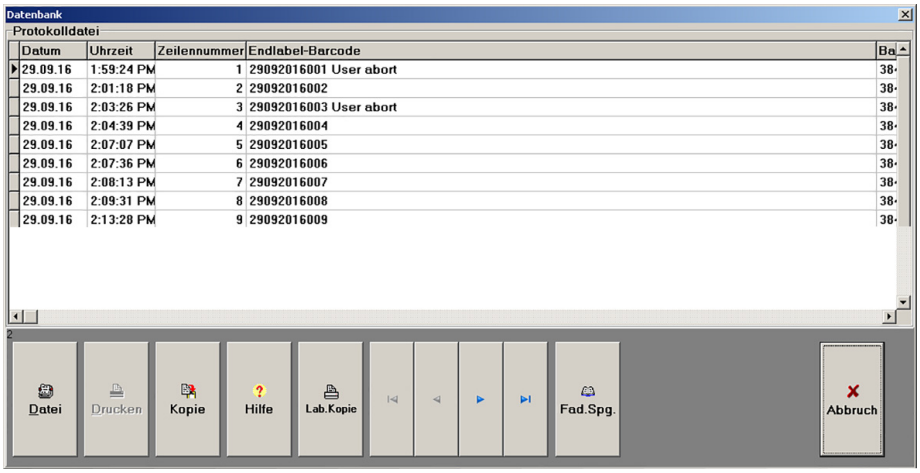
5.5.1 Opening the `Database` display

To open the `Database` display:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Press the **Database** button on the main screen.

↳ The display switches to:

Fig. 116: Opening the Database display



5.5.2 Opening the protocol database

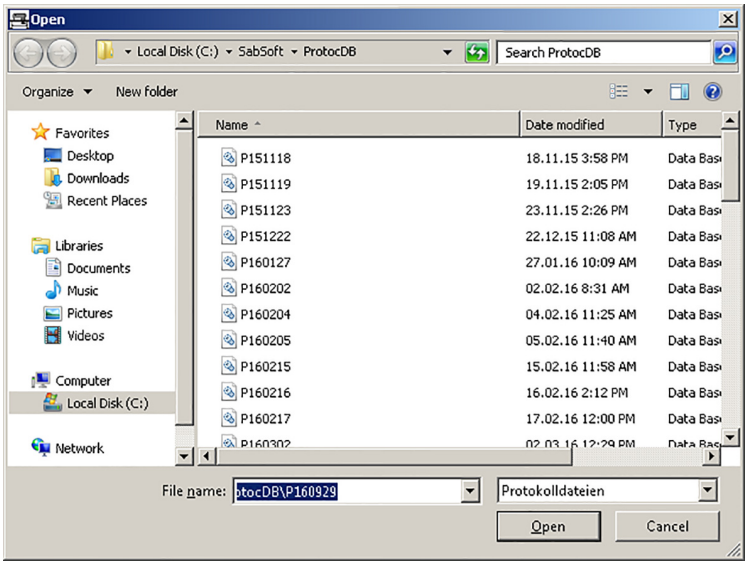
A new protocol database will be created for every new day. You can use the **File** button to open all existing protocol databases.

To open a protocol database:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the `Database` display (📖 *p. 118*).
3. Press the **File** button.

↳ The display switches to:

Fig. 117: Opening the protocol database (1)



4. Select the desired protocol database.
5. Confirm with **Open**.

↳ The selected protocol database is displayed.

5.5.3 Printing a protocol file

If a protocol printer is connected and installed on the control panel, every protocol file can be printed out.

To print out a protocol file:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the `Database` display (📖 *p. 118*).
3. Select the desired protocol file.
4. Press the **Print** button.

↳ This button cannot be pressed unless a protocol printer has been connected and set up.

Information

Once a print command has been given, the printout will not only include the file but also the entire database.

5.5.4 Copying a protocol file (`Copy`)

You can copy the existing protocol files to other storage locations.

Other storage locations can be other folders in the directory of the control panel and external storage media such as a USB key or external servers. The storage location can be changed manually (📖 *p. 175*).

To copy a protocol file:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the `Database` display (📖 *p. 118*).
3. Select the desired protocol file.
4. Press the **Copy** button.

Information

The copy of the protocol file will be stored in the same location as the automatic backup copies of the entire protocol database (📖 *p. 177*).

Important

As tearing seams are essential to safety, long-term storage of the associated protocol files is imperative. It is, therefore, essential to regularly copy / store external backups of the entire protocol database. Dürkopp Adler is NOT responsible for saving, backing up or managing the data.

5.5.5 Error codes (*Help*)

A press on the **Help** button opens a list of the error codes that the machine may display.

Fig. 118: Error codes (Help)

5.5.6 Printing a copy of an end label (*Lab. Copy*)

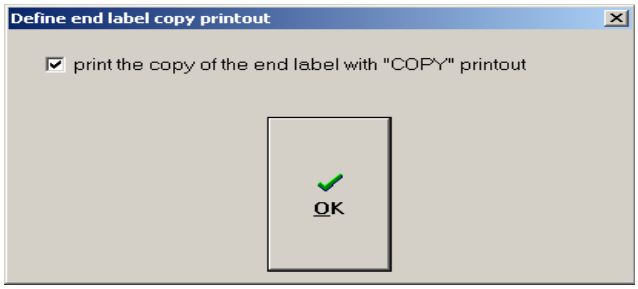
The protocol database can be used to print a copy of the end label sewn into every sewing material.

To create the copy of an end label:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the *Database* display (📖 *p. 118*).
3. Select the desired protocol file.
4. Press the **Lab. Copy** button.

↳ The display switches to:

Fig. 119: Printing a copy of an end label (Lab. Copy)



5. 2 options:
   - Print an end label **with** the additional word **COPY**: Set checkmark
   - Print an end label **without** the additional word **COPY**: Remove checkmark
6. Confirm with **OK**.

↳ The end label is printed.

5.5.7 Thread tension (*Thr. tens.*)

For documented seam sections, the thread tension of every single stitch is recorded and saved in the thread tension database. A file that allows you to look up these thread tension values is created for every sewing material.

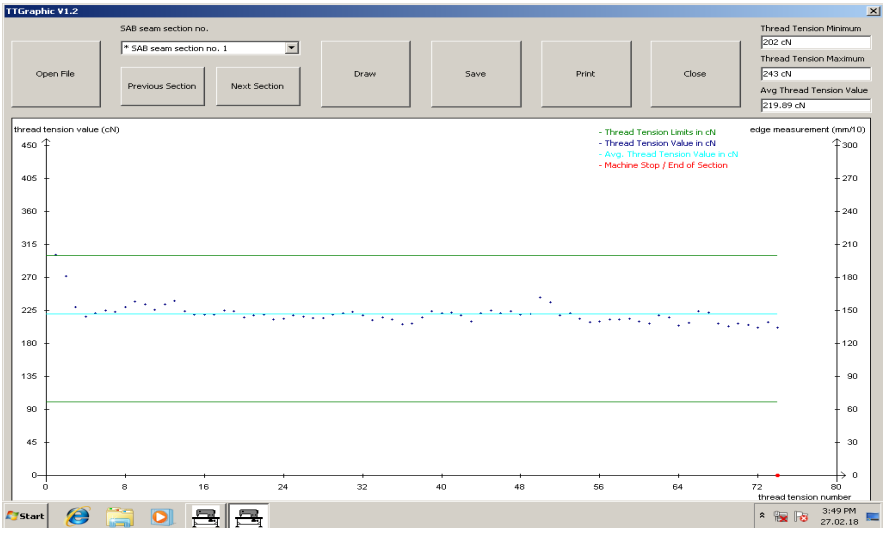
The barcode on the end label makes it possible to clearly identify which sewing material is associated with which thread tension values.

To look up the thread tension values:

1. Log in with security level **1** or **2** (📖 *p. 75*).
2. Open the *Database* display (📖 *p. 118*).
3. Select the desired protocol file.
4. Press the **Thr. tens.** button.

↳ The display switches to:

Fig. 120: Thread tension (Thr. Tens.) (2)



5.6 Check

Users with security level **2** can define all basic settings and redefine some access rights on the `Checks` display.

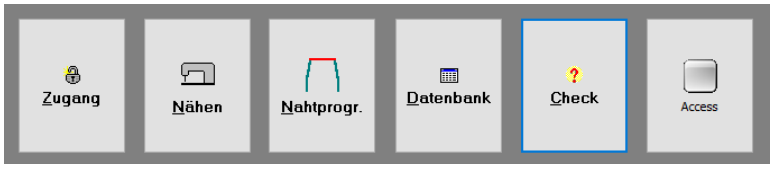
5.6.1 Structure of the Checks display

`Checks` 1st level	`Checks` 2nd level	`Checks` 3rd level (selection)
Create a system backup 🕮 *p. 125*		
Restore data 🕮 *p. 127*		
Print special label 🕮 *p. 129*		
Create a backup of the protocol database 🕮 *p. 128*		
Adopt data 🕮 *p. 129*		
Copy Dump Files 🕮 *p. 129*		
Overview of all connections 🕮 *p. 130*		
Reduce data volume of protocol database 🕮 *p. 130*		
DacFlexCommander 🕮 *p. 130*		
Setup 🕮 *p. 130*	Define barcodes 🕮 *p. 159*	Save barcode profile 🕮 *p. 160*
	Create label 🕮 *p. 163*	Define extended end label 🕮 *p. 172*
		Save end label 🕮 *p. 170*
	Path + network	Define storage paths 🕮 *p. 175*
		Define automatic back-ups 🕮 *p. 177*
	General settings 🕮 *p. 133*	Change barcode lengths 🕮 *p. 133*
		Define delimiters 🕮 *p. 133*
	Set components 🕮 *p. 135*	Set batch mode 🕮 *p. 162*
		Scan multi barcodes 🕮 *p. 135*
	Set values	Change security levels 🕮 *p. 66*

Checks 1st level	*Checks* 2nd level	*Checks* 3rd level (selection)
Thread database 🕮 *p. 178*	Create a new thread 🕮 *p. 178*	
Thread database 🕮 *p. 178*	Create new/edit thread 🕮 *p. 180*	
	Delete thread 🕮 *p. 180*	
Print protocol database 🕮 *p. 140*		
Open seam database 🕮 *p. 141*		
Open bobbin database 🕮 *p. 141*	Delete bobbin 🕮 *p. 174*	
Open needle database 🕮 *p. 142*	Check needle 🕮 *p. 143*	
	Change needle 🕮 *p. 144*	
Calibrate stepper motor 🕮 *p. 144*		
Open calibration database 🕮 *p. 145*		
Stitch length	Check stitch length	
	Calibrate stitch length	
Check input/output		
Check scanner 🕮 *p. 147*		
Check the sewing motor		
Check thread tension 🕮 *p. 148*	Create teach-in file 🕮 *p. 181*	
	Check software version 🕮 *p. 149*	
Uninterrupted power supply (UPS) 🕮 *p. 151*		

5.6.2 Opening the *Checks* display

Fig. 121: Opening the Checks display (1)

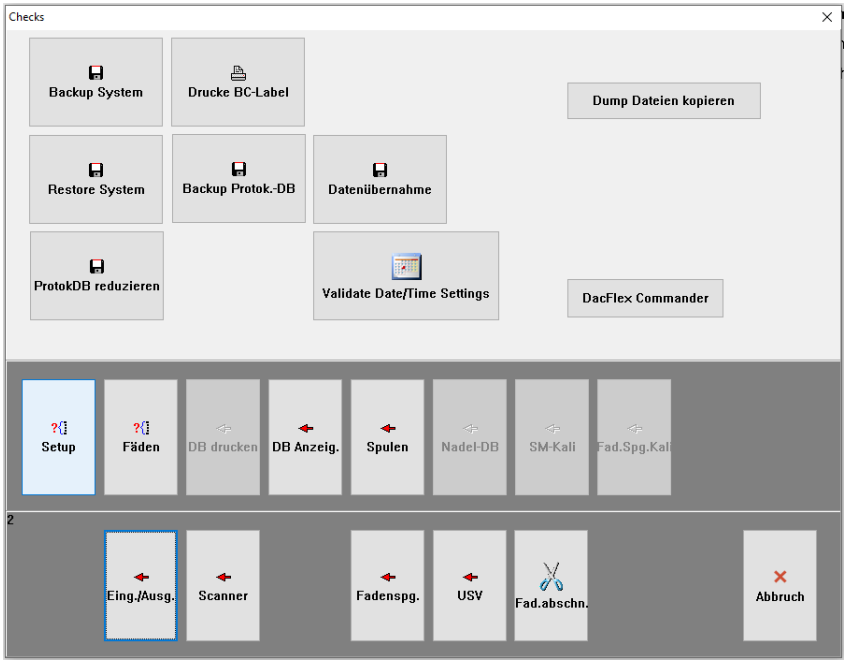


To open the *Checks* display:

1. Log in with security level **2** (📖 *p. 75*).
2. Press the **Check** button on the main screen.

↳ The display switches to:

Fig. 122: Opening the Checks display (2)



5.6.3 Creating a system backup (*Backup system*)

The machine has been configured at the factory so that it is ready for work right away.

The preparations at the factory included the installation of the **Windows 10** operating system and of Dürkopp Adler's software **SAB** including all necessary settings.

These settings (delivery state) are also included as a **backup** copy.

The backup software used by Dürkopp Adler is the application Acronis ® Backup & Recovery ®; see http://www.acronis.de.

Important

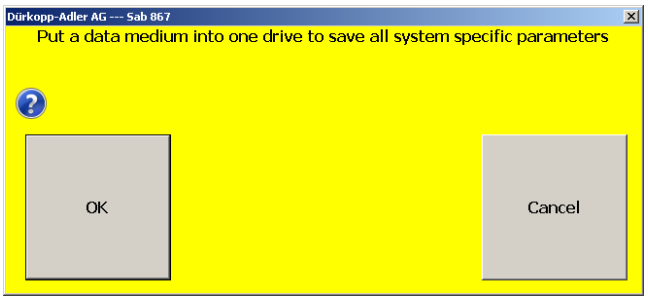
As the **SAB** software only monitors and saves the data of the tearing seams, you need to create a backup of the entire system on a regular basis.

To create a system backup:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Checks` display (📖 *p. 125*).
3. Press the **Backup system** button.

↳ The display switches to:

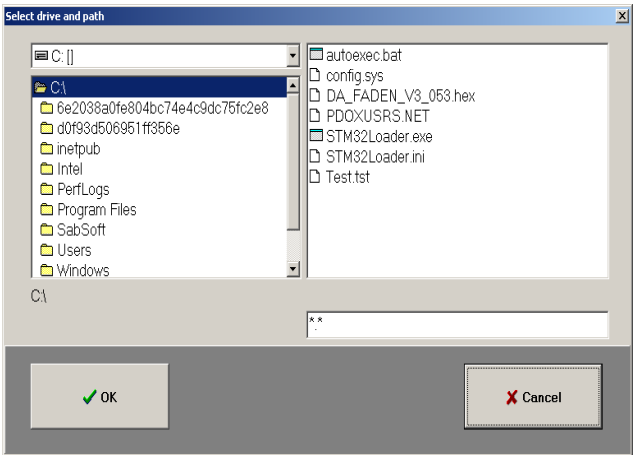
Fig. 123: Creating a system backup (`Backup system`) (1)



4. Confirm with **OK**.

↳ The display switches to:

Fig. 124: Creating a system backup (`Backup system`) (2)



5. Select the storage location.
6. Confirm with **OK**.

↳ The system backup is saved to the desired storage location.

Information

This function is useful if you want to set up multiple machines with the same settings.

You can set up a machine, create a backup of that system on a USB key (📖 *p. 125*), and use the function `Restore system` to install the system backup on the next machine (📖 *p. 127*). The storage location of the system backup can be changed at any time (📖 *p. 175*).

5.6.4 Restoring data (`Restore system`)

If you previously created a system backup (📖 *p. 125*), you can use this backup to restore the system at a later time.

You can specify which individual parameters you wish to restore.

Information

This function is useful if you want to set up multiple machines with the same settings.

You can set up a machine, create a backup of that system on a USB key (📖 *p. 125*), and use the function `Restore system` to install the system backup on the next machine (📖 *p. 127*).

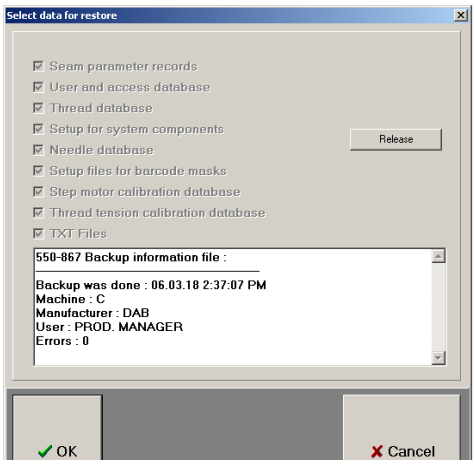
The storage location of the system backup can be changed at any time (📖 *p. 175*).

To restore the data:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Checks` display (📖 *p. 125*).
3. Press the **Restore system** button.

↳ The display switches to:

Fig. 125: Restoring data (Restore system)



4. Press the **Release** button.

↳ The listed parameters are now no longer displayed semi-transparent.

5. Select the parameters you wish to restore.
6. Confirm with **OK**.

5.6.5 Creating a backup of the protocol database (*Backup protoc. DB*)

This function is used to back up all protocol files to a protocol database under the corresponding names of the machine.

To create a backup of the protocol database:

1. Log in with security level **2** (📖 *p. 75*).
2. To create a backup of the protocol database, proceed as explained for the creation of a system backup (📖 *p. 125*).

Important

Since the machine produces tearing seams that are essential to safety, it is imperative that you create regular backups of the protocol database and store them long term in an external storage location.

Information

The name of the machine can be changed on the Setup display (📖 *p. 133*).

You can change the storage location as needed (📖 *p. 175*).

5.6.6 Printing a barcode label (*Print BC label*)

This function allows you to print a specific label (e.g. thread barcode or barcode parts primary).

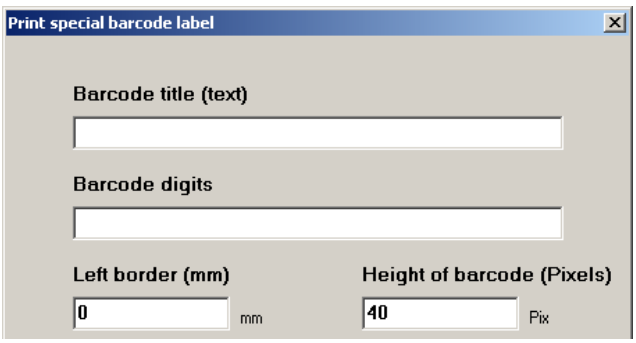
Here, you enter the barcode number, the text, the barcode height and the position from the left edge and print the barcode label.

To create and print a special label:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Print BC label** button.

↳ The display switches to:

Fig. 126: Printing a special label (Print BC label)



4. Enter the desired data.
5. Confirm with **OK**.

↳ The label is printed.

5.6.7 Data transfer

This function can be used to import backup files of older software versions to the machine.

To import data from a different machine:

1. To transfer data to a different machine, proceed as explained for the creation of a system backup (📖 *p. 125*).

5.6.8 Copying dump files

This function is used to copy all dump files.

To copy dump files:

1. To copy dump files, proceed as explained for the creation of a system backup (📖 *p. 125*).

5.6.9 Reducing the volume of the protocol database (*Reduce protoc. DB*)

To reduce the data volume of the protocol database on the internal storage device, you can use a function that will delete all files that are older than 1 year.

Important

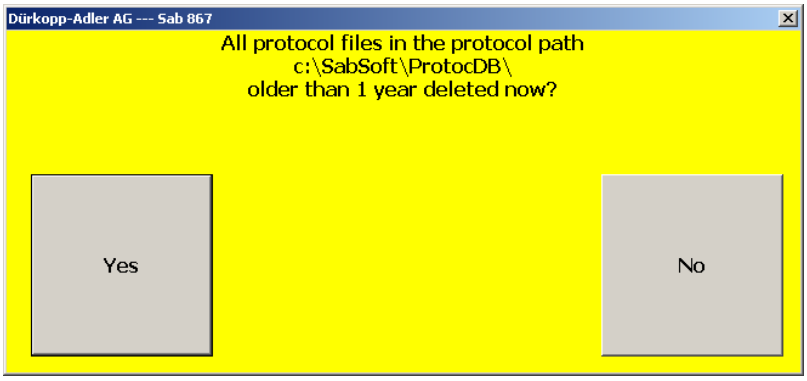
Create regular backups of the protocol database and store them in an external location. Do not reduce the volume of the protocol database until you have saved all protocol files to an external location (📖 *p. 128*).

To reduce the data volume of the protocol database:

1. Log in with security level **2** (📖 *p. 75*).
2. If necessary, create a backup of the protocol database (📖 *p. 128*).
3. Open the *Checks* display (📖 *p. 125*).
4. Press the **Reduce protoc. DB** button.

↳ The display switches to:

Fig. 127: Reducing the volume of the protocol database (Reduce protoc. DB)



5. Confirm with **Yes**.

↳ All protocol files that are older than 1 year will be deleted.

5.6.10 DACFleXCommander

All settings found under this menu item are explained in the chapter *Programming* of the service instructions for class D867 machines.

5.6.11 Setup

Stored on the *Setup* display are the basic settings of the machine. These settings have been grouped into three categories:

- General settings
- Components
- Values

Stored under the buttons **Barcodes**, **Label** and **Path+netw.** are additional setting options for the barcodes, the end label and the storage paths of the control panel.

Only users with security level **2** can open the *Setup* display and change settings.

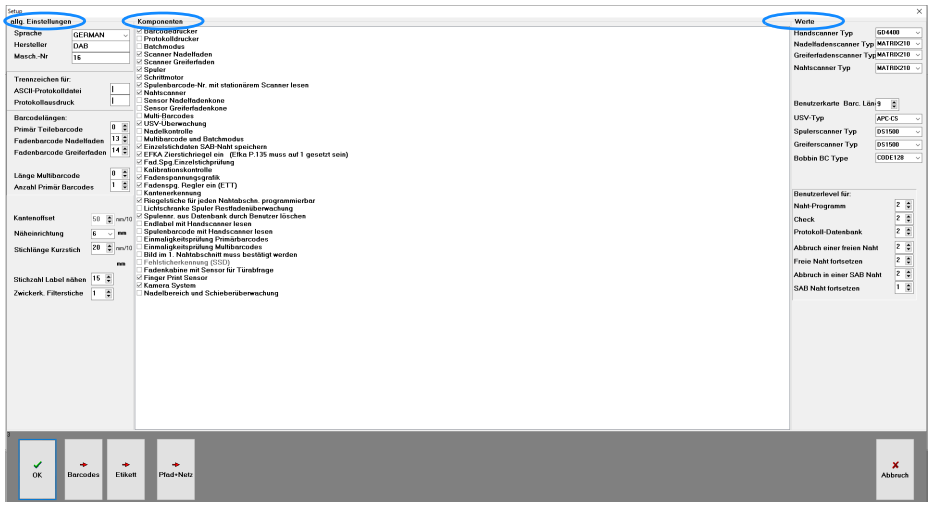
Opening the *Setup* display

To open the *Setup* display:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Setup** button.

↳ The display switches to:

Fig. 128: Opening the Setup display



General settings (*General settings*)

NOTICE

Property damage may occur!

Damage to the sewing material and the machine if 9 mm has been set for 6 mm sewing equipment.

Prior to initial use, make sure to set the proper sewing equipment (6 mm or 9 mm).

Fig. 129: General settings (General settings)

The general settings allow to you set the following:

Setting	Meaning
General settings	
Language	Set the system language
Manufacturer	Assign a name for the manufacturer

Setting	Meaning
Machine No.	Assign a name/number for the machine
Delimiter for:	
ASCI protocol file	Define a delimiter separating the individual information of the stored data records (e. g. **-** or **I**)
Protocol printout	Define a delimiter separating the individual information of the stored data records on the printout (e. g. **-** or **I**)
Barcode lengths:	
Barcode parts primary	Barcodes of the pieces to be sewn that will be requested at the beginning of each sewing process. Here, you define how many digits the barcodes parts primary have and will be accepted by the software. The barcodes parts primary should contain, for instance, the following information: Color / material Piece ID (A/B/C) Seam record code L/R code (left or right piece)
Barcode needle thread	Defines how many digits the needle thread barcode has and will be accepted by the software. If, for instance, the setting is 18, the needle thread barcode MUST be exactly 18 digits long. If the setting is 0, the needle thread barcode will always be scanned regardless of its length
Barcode bobbin thread	Defines how many digits the hook thread barcode has and will be accepted by the software. If, for instance, the setting is 18, the hook thread barcode MUST be exactly 18 digits long. If the setting is 0, the hook thread barcode will always be scanned regardless of its length
Length multi barcode	Defines how many digits the multi barcode has and will be accepted by the software If the setting is 0, the multi barcodes will always be scanned regardless of their length
Primary barcode count	Defines how many barcodes parts primary will have to be scanned accordingly at the beginning of a sewing process (1, 2 or 3)
Offset edge detection	The value can only be determined with the help of an edge/ width seam detection sensor (see 🕮 *Additional Instructions*).
Sewing equipment	Select the sewing equipment used (Stitch length 6 mm or 9 mm)
St. length thread cutter	Defines the length of the short stitch for the short thread cutter (approx. 1.0-1.5 mm; the airier the material, the longer the short stitch needs to be)
Stitch count label sewing	If an end label is sewn in later, the seam will be sewn with the number of stitches set here.

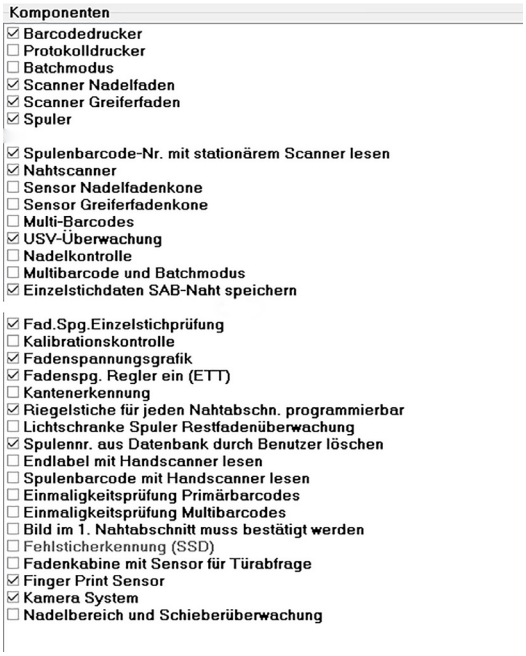
Setting	Meaning
Notch det. stitches	To prevent every thread crossing the light barrier from simulating a notch, the function *Notch det. stitches* can be used to modify the response of the light barrier. If, for instance, you enter the value 2, the size of the notch must stretch across two stitches before it is detected as a notch.

Information

The changed settings will not be adopted until the program is restarted (📖 *p. 186*). All changes will have been implemented after a restart.

Components

Fig. 130: Components



Here, the equipment/functions used are activated/deactivated.

Component	Function
End label printer (*Barcode printer*)	For printing the barcode labels
Protocol printer	For printing the protocol data of the protocol database or any sewn piece (can be connected as an option)
With batch mode	Allows for repeated sewing after a single scan. 📖 *p. 162*
Scanner needle thread	Reading the needle thread barcode using the stationary scanner (optional)
Scanner bobbin thread	Reading the hook thread barcode using the stationary scanner (optional)

Component	Function
Winder	Motorized winder
Read bobbin number with fixed scanner	Bobbin identification by barcode (optional)
Scanner on the seam	End label identification by end label scanner (optional)
Needle thread sensor reel (*Sensor needle thread cone*)	Monitoring of the needle thread reel by proximity switch. The sensor detects when the needle thread reel has been removed. The needle thread barcode is scanned using the hand scanner.
Bobbin thread sensor reel (*Sensor bobbin thread cone*)	Monitoring of the hook thread reel by proximity switch. The sensor detects when the hook thread reel has been removed. The hook thread barcode is scanned using the hand scanner.
Multi barcodes	Apart from the barcodes parts primary, it is also possible to request up to 9 multi barcodes at the beginning of the sewing process
With UPS control	Automatic switch to battery power when the power supply has been interrupted 📖 *p. 151*
Needle control	Set when the needle is supposed to be checked and/or changed. The needle database cannot be viewed unless this function is enabled 📖 *p. 142*
Multi barcode with batch mode	Batch mode makes it possible to scan the barcodes parts primary and the multi barcodes and, subsequently, sew repeatedly without the need to scan the barcodes again 📖 *p. 162* The batch size is used to define how many sewing processes are supposed to be completed before the barcodes will be requested again.
Store single stitch data in SAB seam	Saving the thread tension values of each needle stitch in a documented seam section to a TXT file
Thread tension single stitch checking	Definition as to whether the number of stitches outside of the tolerance must be distributed in sequence or along the entire seam
Calibration control	Regular check of the stepper motor / the thread force sensor
Thread tension graphics	Visualization of the thread tension during the sewing process
Thread tension regulator on	If the machine is used with an ETT, the TARGET and the ACTUAL values of the thread tension will be compared, and the thread tension will be corrected (regulated) automatically during sewing (📖 *Operating Instructions*)
Edge measuring	Additional equipment used to detect/monitor the distance of the needle to the material edge
Tack stitches for each seam section	Allows for setting different tack stitches for start and end bartack in the respective seam sections

Component	Function
Light barrier winder to check if thread on bobbin	This function is not active unless combined with an attached forked light barrier (optional). The forked light barrier checks if the bobbin is empty before the bobbin can be filled again. If there is remaining thread left on the bobbin, the winding process will not start.
Delete the bobbin number from the database by a user with security level **0** (*Delete bobbin from DB by operator)*	Here, you can define if a user with security level **0** will also be allowed to delete a bobbin number from the database 📖 *p. 66* If this function is activated, the **Delete bobbin** button will also be displayed on the main screen for users with security level **0**.
Scan end label with hand scanner	The end label barcode can be scanned using the end label scanner or the hand scanner. This function makes it possible to use the hand scanner instead of the end label scanner.
Scan bobbin barcode with hand scanner	The bobbin barcodes are scanned using the stationary scanners located at the bobbin and above the hook. This function makes it possible to use the hand scanner instead of the stationary scanners.
Primary barcodes must be unique	The barcodes parts primary with changing contents (e.g. with a consecutive number) are checked to ensure that every barcode parts primary is used only once. If a barcode parts primary is scanned a second time, an error message will be displayed. All barcodes parts primary that can be used are recorded in a text tile (PrimaryBarcodes.txt), which is stored in the directory “System.DB”.
Multi barcodes must be unique	The multi barcodes with changing contents (e.g. with a consecutive number) are checked to ensure that every multi barcode is used only once. If a multi barcode is scanned a second time, an error message will be displayed. All multi barcodes that can be used are recorded in a text tile (Multibarcodes.txt), which is stored in the directory “System.DB”.
Confirm picture in first seam section	This function involves the saving of an image that must be compared to the sewing material.
Thread cabinet with door detection	This type of equipment is a special enclosure that is used for the thread reel stand. The sewing process cannot be started and no bobbin can be wound unless the door is closed. If the door is opened while the sewing process is ongoing, the sewing process will stop.
Deactivate/activate fingerprint scanner (*Finger Print Sensor*)	When deactivated, the fingerprint scanner cannot be used by any user for logging in. Users with fingerprint detection will then only be able to log in via software. 📖 *p. 77*

To activate or deactivate the components:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the `Setup` display (🕮 *p. 132*).
3. Press the component you wish to activate/deactivate.

↳ If the checkmark is set, the function is activated.

↳ If the checkmark is not set, the function is deactivated.

Values

Fig. 131: Values

Press the arrows on the right next to the buttons to open a selection menu.

Value	Function
Hand scanner	Select the hand scanner used
Needle thread scanner	Select the needle thread scanner used
Hook thread scanner	Select the hook thread scanner used
Seam scanner	Select the seam scanner used
Length of card barcode	Length of the access barcode used by the users to log in.
UPS Type	Select the type of the UPS
Bobbin scanner type	Select the bobbin scanner used
Hook scanner type	Select the hook scanner used
Bobbin BC Type	Define the barcode type that will be used
User level for:	Changing the access rights makes it possible to modify the 3 security levels / the rights to access the system. The entered values represent the corresponding security level the user must at least possess to execute the function 📖 *p. 65*.
Seam program	
Check	
Protocol database	
Cancel a free seam	
Continue free seam	
Cancel within a tearing seam	
Continue tearing seam	

Barcodes

The Barcodes display holds the basic settings for the barcodes (📖 *p. 154*).

Label

The Label display contains the basic settings for the end label (`Label`) (📖 *p. 163*).

Path + network

You can specify new storage locations for the following databases (📖 *p. 175*):

- Protocol database
- System database
- Automatic copy of protocol database

You can also use the display to set the interval at which the protocol database will be backed up automatically (📖 *p. 177*).

5.6.12 Opening the thread database (*Threads*)

All threads you wish the machine to sew with must be recorded and defined in the thread database.

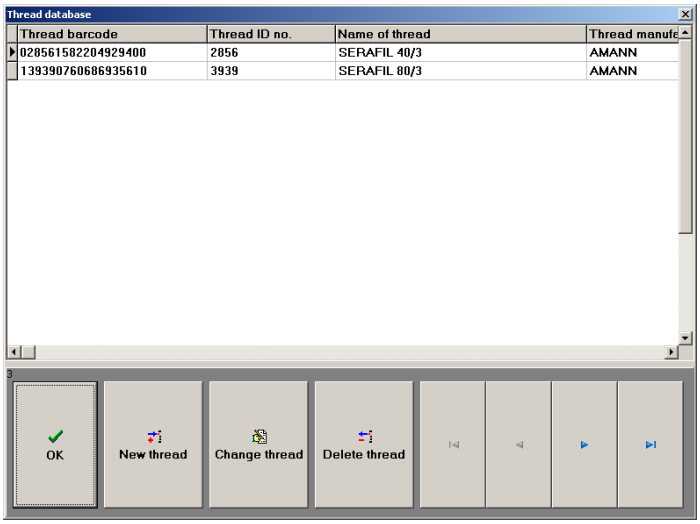
Here, you can edit (📖 *p. 180*) and delete (📖 *p. 180*) threads you have already created and create new threads (📖 *p. 178*).

To open the thread database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Threads** button.

↳ The display switches to:

Fig. 132: Opening the thread database (Threads)



5.6.13 Printing the protocol database (*DB print*)

Here, you can print out the protocol database.

To print the protocol database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **DB print** button.

↳ The protocol database is printed.

Information

The protocol database is always printed out in full.

If the function *Protocol printer* is not active on the Setup display, the **DB print** button will be displayed semi-transparent. In that case, it will not be possible to print the protocol database even if the protocol printer is connected and set up.

5.6.14 Opening the seam database (*Show DB*)

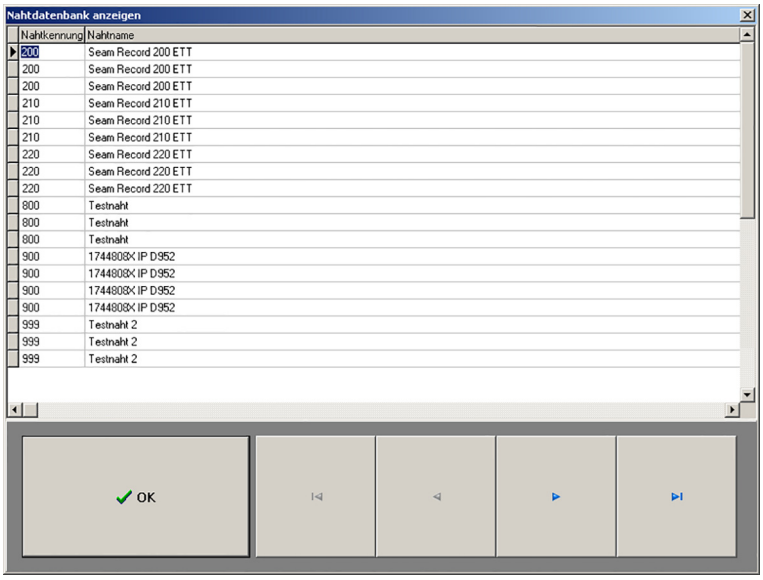
The seam database contains the information about all seam record sets and their settings.

To open the seam database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Show DB** button.

↳ The display switches to:

Fig. 133: Opening the seam database (Show DB)



5.6.15 Opening the bobbin database (*Bobbins*)

The bobbin database contains the information about all bobbins that are registered and can be used with the machine.

Information

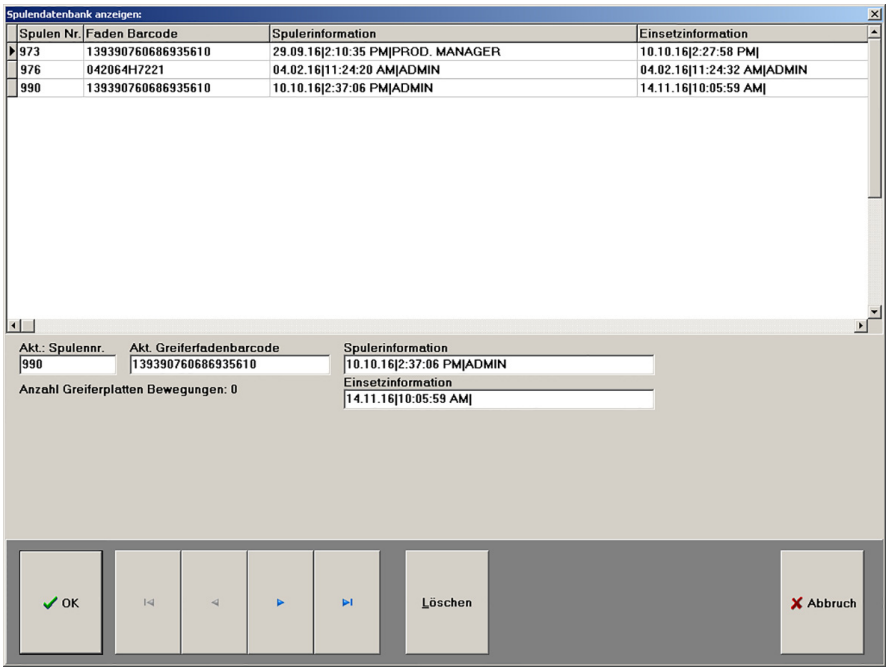
The bobbins can be deleted here and on the main screen (📖 *p. 174*).

To open the bobbin database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Checks` display (📖 *p. 125*).
3. Press the **Bobbins** button.

↳ The display switches to:

Fig. 134: Opening the bobbin database (Bobbins)



5.6.16 Needle database (`Needle DB`)

If the `Setup` display shows the `Needle control` function as activated, the user will be prompted at specific intervals to check and, if necessary, change the needle.

This check and any necessary change will be documented in the needle database.

Information

If the function `Needle control` is deactivated on the `Setup` display, the **Needle DB** button will be displayed semi-transparent. It will then not be possible to open the needle database.

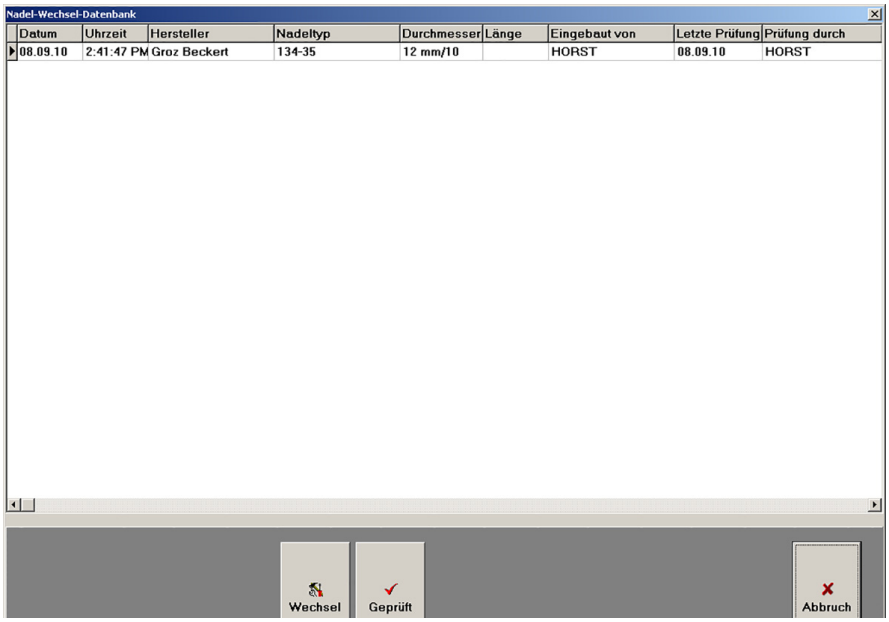
Opening the needle database

To open the needle database:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the `Checks` display (🕮 *p. 125*).
3. Press the **Needle DB** button.

↳ The display switches to:

Fig. 135: Opening the needle database



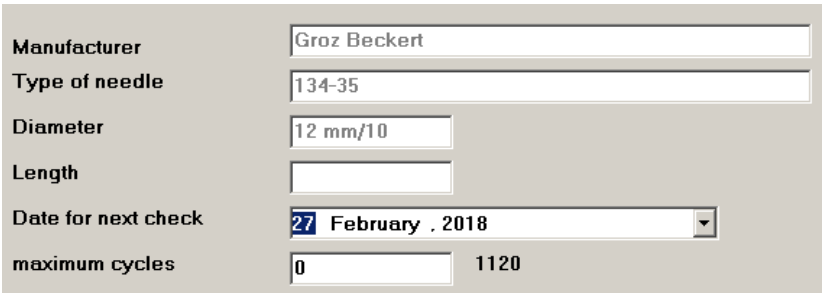
Scheduling a needle check

To schedule the time for the next needle check:

1. Open the needle database (🕮 *p. 142*).
2. Press the **Checked** button.

↳ The display switches to:

Fig. 136: Scheduling a needle check



3. Check the needle.
4. Enter the date of the next check.
5. Confirm with **OK**.

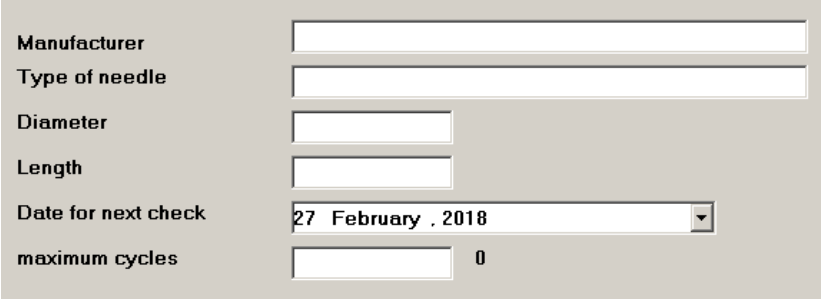
Registering a needle change

To register a needle change:

1. Open the needle database (📖 *p. 143*).
2. Press the **Exchange** button.

↳ The display switches to:

Fig. 137: Registering a needle change



3. Change the needle (📖 *Operating Instructions*).
4. Modify the data if necessary.
5. Confirm with **OK**.

5.6.17 Calibrating the stepper motor (*SM-Cali*)

If the function *Calibration control* is active, the user will be prompted at regular intervals to check the settings of the stepper motor and re-calibrate them if necessary.

The stepper motor may only be calibrated by technicians with security level **2**. These work steps are documented in the stepper motor calibration database.

Information

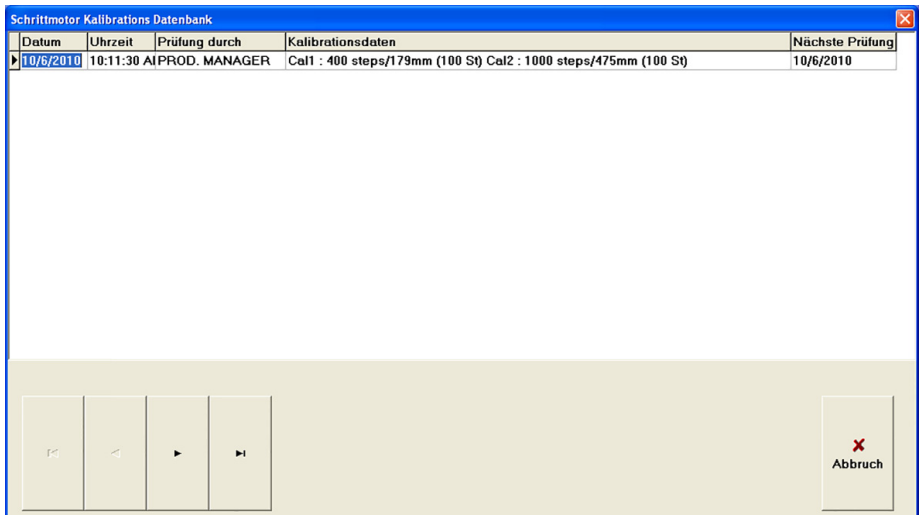
If the function *Calibration control* is deactivated on the Setup display, the **SM-Cali** button will be displayed semi-transparent.

To open the stepper motor calibration database:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **SM-Cali** button.

↳ The display switches to:

Fig. 138: Calibrating the stepper motor (SM-Cali)



5.6.18 Opening the calibration database (*T.Tens.-Cali*)

If the function *Calibration control* is active, the user will be prompted at regular intervals to check the settings of the thread tension sensor and re-calibrate them if necessary.

Information

If the function *Calibration control* is deactivated on the Setup display, the **T.Tens.-Cali** button will be displayed semi-transparent.

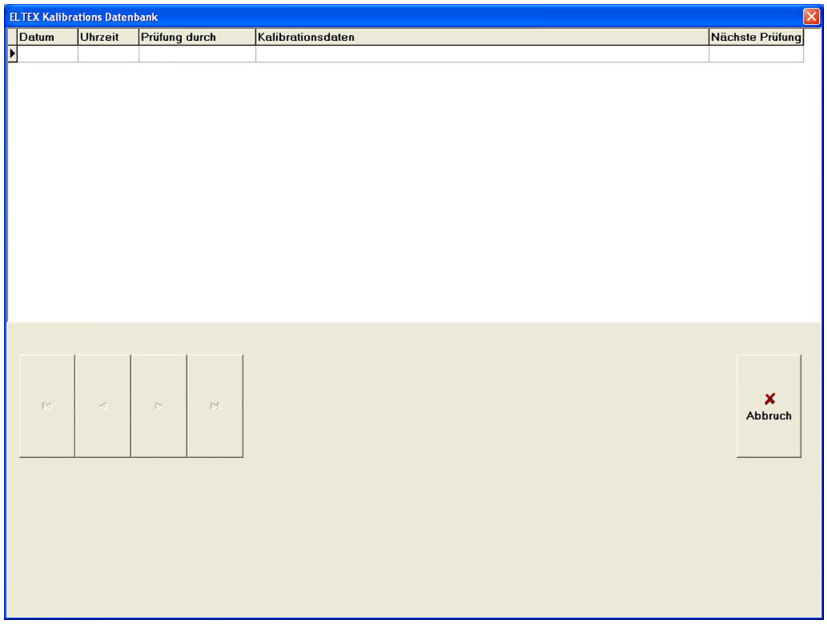
The thread tension sensor must be re-calibrated once a year. For this purpose, turn to our Dürkopp replacement service before the year runs out (*www.duerkopp-adler.com*).

To open the calibration database of the thread tension sensor:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **T.Tens.-Cali** button.

↳ The display switches to:

Fig. 139: Opening the calibration database (T.Tens.-Cali)



5.6.19 Checking the scanners (*Scanner*)

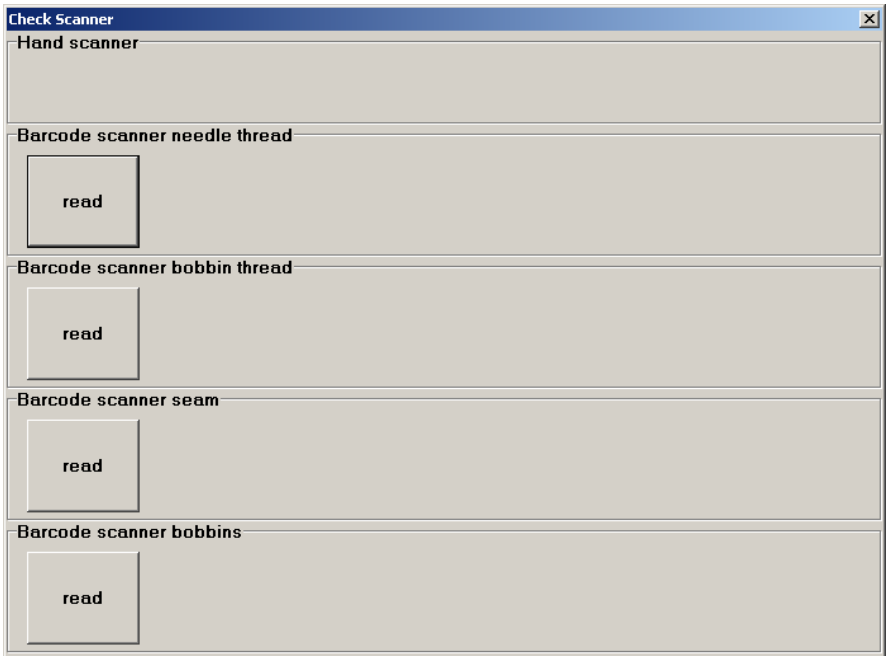
Here, you can check all assembled scanners.

To check the scanners:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Scanner** button.

↳ The display switches to:

Fig. 140: Checking the scanners (Scanner)



4. Press the **read** button below the scanner you wish to check.

Information

The *Check Scanner* display can also be opened using the **Check scanner** button on the main screen.

5.6.20 Thread tension (*Thread tens.*)

Here, you can set the thread tension in consideration of the specified tolerance limits, the sewing speed, the stroke, and the stitch length. The thread tension can also be checked after a teach-in process with the help of electronically regulated thread tension (for ETT only).

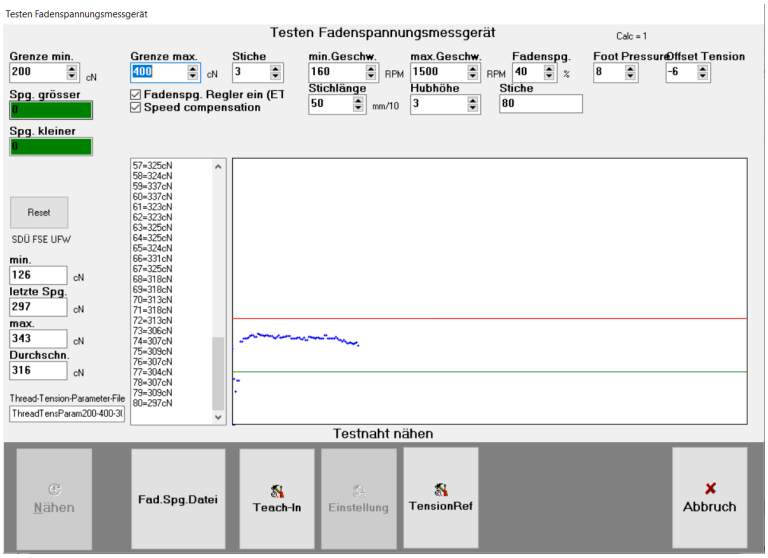
Opening the display *Checking thread tension monitor*

To open the display *Checking thread tension monitor*:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Thread tens.** button.

↳ The display switches to:

Fig. 141: Opening the display Checking thread tension monitor



4. Enter the values on the *Checking thread tension monitor* display.

Information

The offset value must be set such that the values of the thread tension range in the middle between the red and the green line.

Loading a Teach-In for Thread Tension file

Manual thread tension requires that you enter the minimum and maximum values and the stitch length manually:

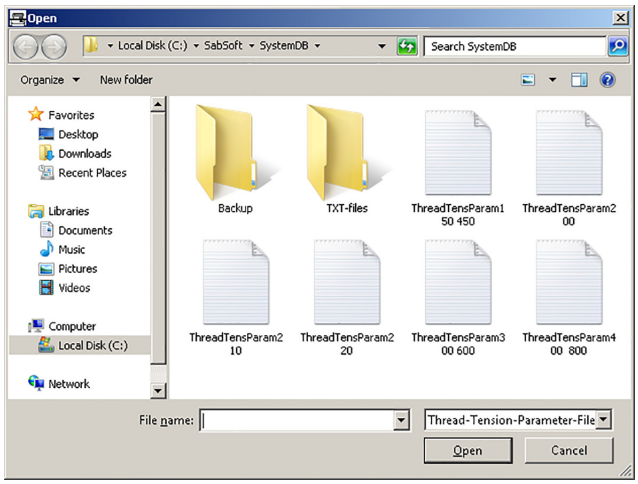
To load a Teach-In for Thread Tension file:

1. Log in with security level **2** (📖 *p. 75*).

2. Open the display `Checking thread tension monitor` (📖 p. 148).
3. Press the **T.Tens.File** button.

↳ The display switches to:

Fig. 142: Loading a Teach-In for Thread Tension file



4. Select the desired teach-in file.
5. Confirm with **Open**.

Teach-In for Thread Tension

Here, you can link a teach-in file to a seam record set (📖 p. 181).

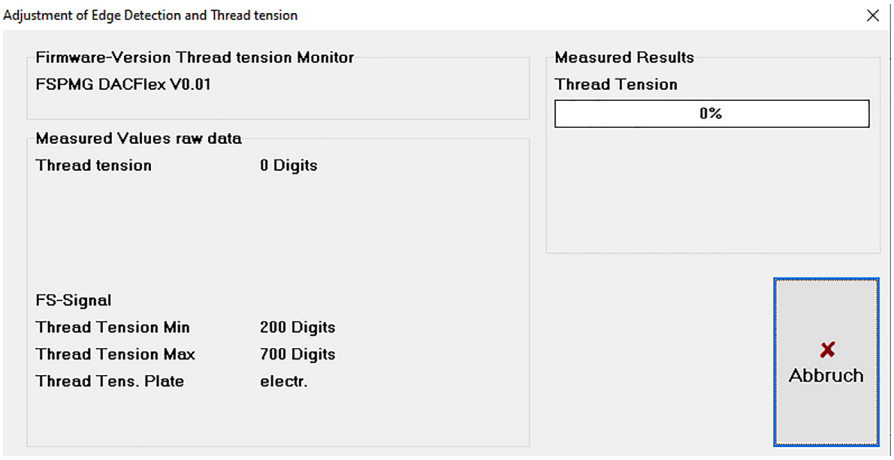
Checking the software version

To check which software version is currently installed on the thread tension circuit board:

1. Log in with security level **2**.
2. Open the display `Checking thread tension monitor` (📖 p. 148).
3. Press the **Settings** button.

↳ The display switches to:

Fig. 143: Checking the software version



5.6.21 Uninterrupted power supply(*UPS*)

NOTICE

Property damage may occur!

Loss of power if power supply is interrupted abruptly.

Ensure that the UPS is always on while working at the machine.

Check the condition of the battery on a regular basis. When the **Replace Battery** light comes on, replace the old battery with a new one of the same quality.

Fig. 144: Uninterrupted power supply (UPS) (1)

The uninterrupted power supply (UPS) is connected upstream from the main switch. If the regular power supply is interrupted, the machine will automatically switch to battery power. This ensures that the sewing process currently in progress can be completed and the machine can be switched off properly without incurring any loss of data.

When the machine runs on battery power, a signal will sound and a message will appear on the screen. You will then have no more than 5 minutes to complete the current sewing process and switch off the machine.

Information

The power consumption in standby mode is lower than during sewing.

Important

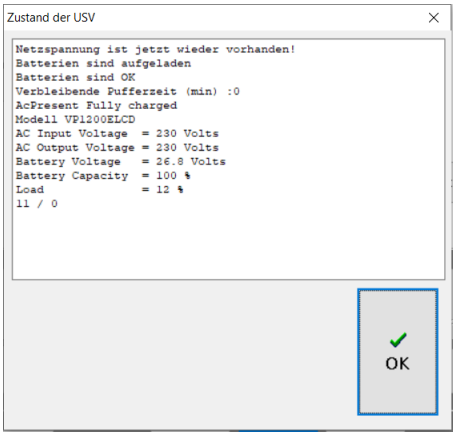
Always keep the UPS switched on during operation to ensure that the battery is constantly charged and you will not incur any loss of data in the event of a power supply interruption. Check the condition of the battery on a regular basis. When the **Replace Battery** light comes on, replace the old battery with a new one of the same quality.

To check the current status of the UPS:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **UPS** button.

↳ The display switches to:

Fig. 145: Uninterrupted power supply (UPS) (2)



5.7 Protocol printer

Before you can print a protocol database, you must connect an external protocol printer to the machine and install it on the control panel (📖 *p. 140*).

Information

The driver of the barcode printer has been pre-installed at the factory.

5.8 Uninstalling the barcode printer drivers

By default, the Windows printer screen shows one protocol printer driver (*Zebra ZD420*).

Important

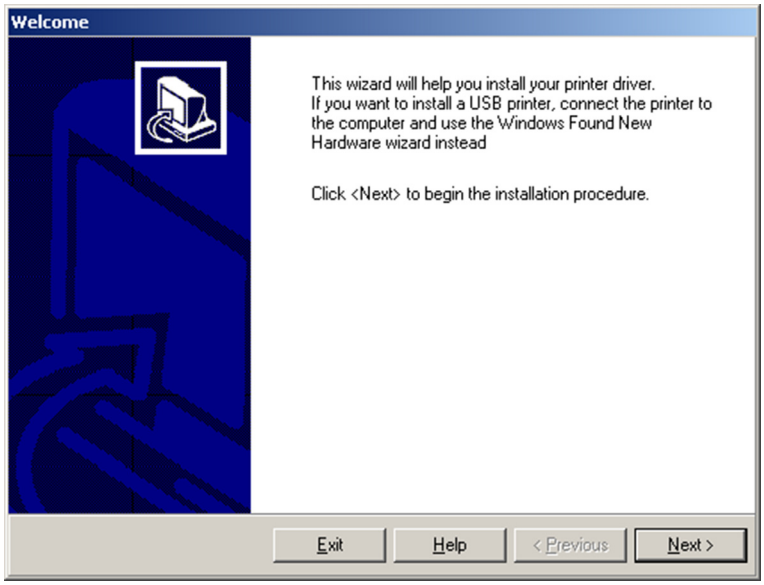
The protocol printer driver may only be uninstalled using the included *Uninstall* program.

To uninstall the printer protocol driver:

1. To switch to the Windows user interface,
   - press the Windows button
   - Exit program (📖 *p. 187*)
2. Open Windows Explorer.
3. Open the folder `C/ZD5-1-16-7228`.
4. Right-click the file `PrnInst.exe` and open it with a press of `Run as admin`.

↳ The display switches to:

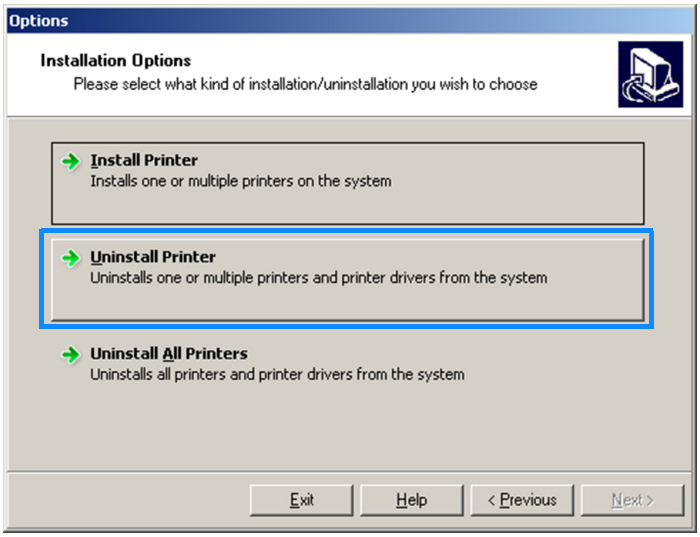
Fig. 146: Uninstalling the barcode printer drivers (2)



5. Press the **Next** button.

↳ The display switches to:

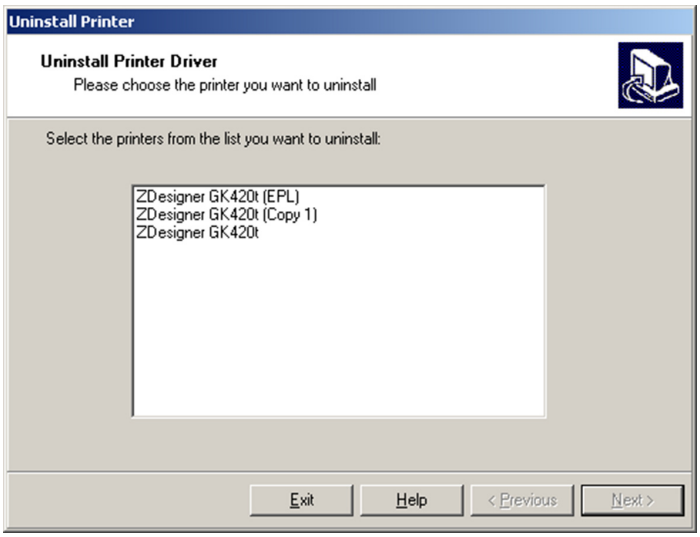
Fig. 147: Uninstalling the barcode printer drivers (3)



6. Press *Uninstall Printer*.
7. Press the **Next** button.

↳ The display switches to:

Fig. 148: Uninstalling the barcode printer drivers (4)



8. Select the desired driver.
9. Press the **Next** button.
10. To uninstall the barcode printer driver, continue to follow the menu prompts.

5.9 Calibrating the end label printer

The end label printer calibrates itself automatically to the distance of the labels on the backing material by means of a built-in light barrier. If the distance is not detected correctly, the end label printer must be re-calibrated.

To do so, refer to page 143 🕮 *Manufacturer's instructions on the end label printer*.

5.10 Barcodes

This screen is used to define all information of the different barcodes. With the help of the barcodes a seam record set is linked to the corresponding barcodes based on the seam record code. When the barcodes defined here are scanned at the beginning of the sewing process, the machine will detect the link to the seam record set. The settings stored in this seam record set will then form the basis of the sewing process.

Barcodes can be read up to the 30th digit. If a barcode is longer, the code can still be scanned, but the information can no longer be read starting with the 31st digit.

5.10.1 Barcodes at a glance

The following is an overview of the different barcodes that are important to the operation of the 550-867 machine:

Barcode	Function
Access barcode	Barcode for logging in by hand scanner 🕮 *p. 76*
Barcode parts primary	Barcodes that will be requested at the beginning of the sewing process (2 or 3). Every piece to be sewn will be identified by such a barcode and assigned directly to the matching seam record set. 🕮 *p. 154*
Multi barcodes	Barcodes that may be requested after the barcodes parts primary at the beginning of the sewing process (up to 9, optional, 🕮 *p. 162*).
Bobbin barcodes	Barcodes on the bobbins inside the winder and the hook (optional)
Barcode of the needle thread reel	Barcode on the needle thread reel (optional).
Barcode of the hook thread reel	Barcode on the hook thread reel (optional).
Barcode on printed label	Barcode on the end label by means of which the production data can be traced back at any time

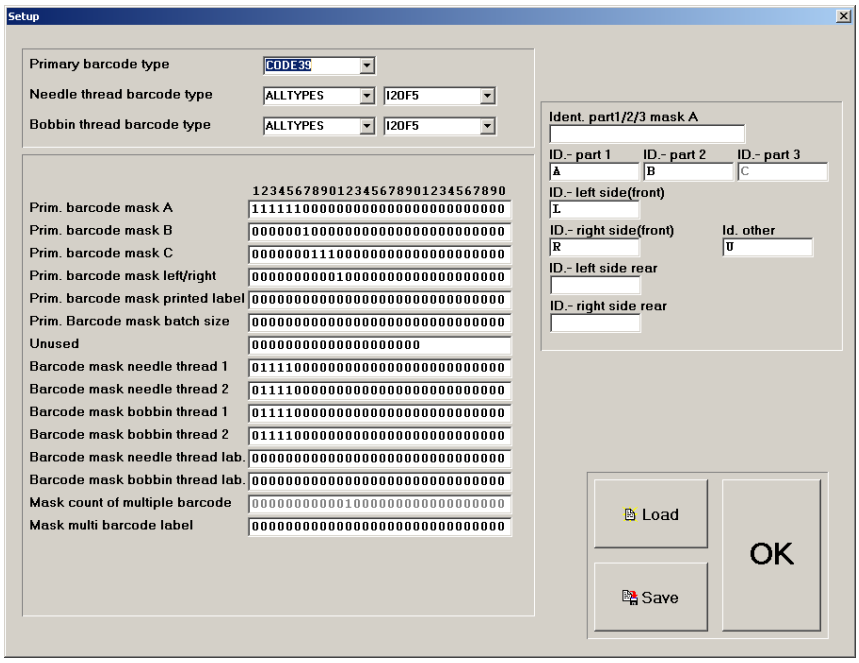
5.10.2 Opening the Barcodes display

To open the Barcodes display:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Press the **Barcodes** button.

↳ The display switches to:

Fig. 149: Opening the Barcodes display (1)



This display is used to define all information associated with the different barcodes.

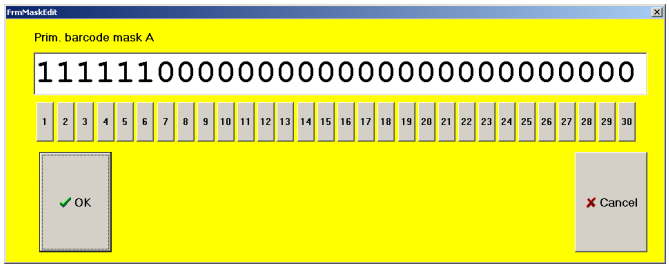
Information

0 = the digit of the barcode will not be read

1 = the digit of the barcode will be read

All information must be stored in places that are defined as 1.

Fig. 150: Opening the Barcodes display (2)



In this example, the first 6 digits of the barcode would be read.

The following settings are part of the Barcodes display:

Barcode	Stored information
Barcode parts primary:	
Prim. Barcode Code A	Here, you can, for instance, store the information material and color associated with the 1st piece. In the example below, the first 4 digits would be assigned this information: *11110000000000000000000000000000*
Prim. Barcode Code B	Here, you need to store information as to which type of piece will be sewn (e.g. top piece, center piece or bottom piece). *00001111000000000000000000000000* ID.- part 1 and ID.- part 2 are numbers of letters that are represented in the barcode. They need to be different.
Prim. Barcode Code C	This option is used to link the sewing parameters / the 3-digit seam record code. *00000000111000000000000000000000*
Prim. barcode mask left/right	This option is used to store the information as to whether the pieces to be sewn, for example, belong to a left or a right seat. *00000000000100000000000000000000*
Prim. barcode mask printed label	This option can be used to define whether the barcode parts primary placed on the end label is supposed to be adopted.
Mask count of multiple barcode	This option is used to define how many multi barcodes are supposed to be scanned. The desired number is specified by selecting the corresponding digit of the barcode parts primary. If you, for instance, wish to scan 5 multi barcodes, the digit to be read in the barcode must be the number 5: *00001000000000000000000000000000*
Additional barcodes:	
Mask batch size	Batch mode must be activated if you wish to store a corresponding piece of information here. 📖 *p. 162*
Unused	without function
Mask multi barcode label	This option can be used to print out information stored in the multi barcodes placed on the end label.
Needle thread code	This option is used to specify how many needle thread barcodes will be read at which places.
Hook thread code	This option is used to specify how many hook thread barcodes will be read at which places.
Code A Setpoint	If you wish to exclusively process pieces with a specific ID number, enter that ID number here. If you wish to sew pieces with different ID numbers, you must not enter anything here.

Barcode	Stored information
ID.- part 1	Here, you define a designation for the 1st, 2nd and 3rd piece to be sewn. This designation may consist of numbers and/or letters. The designation must be found as specified at the defined place in the barcode parts primary of the 1st, 2nd and 3rd piece to be sewn. All 3 IDs must be different.
ID.- part 2	
ID.- part 3	
ID.- left side front	Here, you specify whether the 1st / 2nd piece to be sewn is located on the left or the right. The entered value must be found as specified at the defined place in the barcode parts primary of the 1st / 2nd piece to be sewn.
ID.- right side front	
ID.- left side rear	
ID.- right side rear	
Id. other	Here, you can store an additional piece of information regarding the 3rd piece to be sewn. The entered value must be found as specified at the defined place in the barcode parts primary of the 3rd piece to be sewn.

5.10.3 Changing the barcode type

Fig. 151: Changing the barcode type

Here, you can select which barcode type is supposed to be used for the following barcodes (1D or 2D):

- Barcode parts primary
- Barcode of the needle thread reel (`Barcode used needle thread`)
- Barcode of the hook thread reel (`Barcode used bobbin thread`)

To change the barcode type:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Open the Barcodes display (📖 *p. 156*).
4. Press the **Primary barcode type** input field.

↳ A drop-down menu opens.

5. Select the desired barcode type.

5.10.4 Defining a barcode

To define a barcode:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Open the Barcodes display (📖 *p. 156*).
4. Press the desired input field.

↳ An input window appears.

5. Assign **1** or **0** to the desired digits.
6. Confirm with **OK**.

↳ The new definition is adopted.

The following is an example of two barcodes parts primary:

- Piece A: `384290A100L2`
- Piece B: `384290B100L2`

These barcodes parts primary contain the following information:

	Digit	Barcode	Information
Code A	1-6	384290	Color/material
Code B	7	A/B	Piece A/piece B (always different)
Code C	8-10	100	Seam record code (up to 9,999 seam record sets, 2-4 digits)
Mask left/ right	11	L	Left seat cover (piece 1 and piece 2 must have the same left/right code)
Qty Multiple barcodes	12	2	Scan two multi barcodes at the beginning of the sewing process

5.10.5 Saving a barcode profile

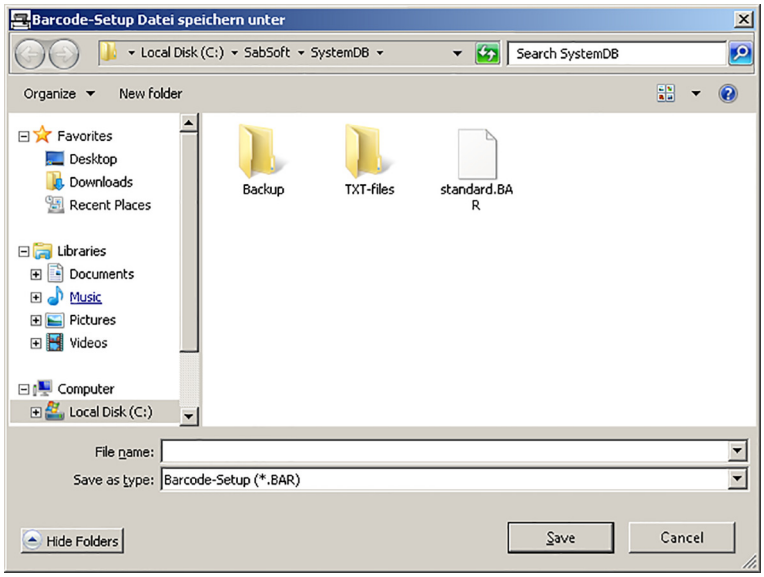
All settings of the barcode can be saved as a barcode profile. Loading a barcode profile eliminates the need to define and save all information more than once.

To save the barcode settings:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the `Setup` display (🕮 *p. 132*).
3. Open the Barcodes display (🕮 *p. 156*).
4. Press the **Save** button.

↳ The display switches to the storage path:

Fig. 152: Saving a barcode



5. Select the desired barcode profile name.
6. Press **Save** to confirm.

↳ The barcode profile is stored on the hard drive of the control panel and can be loaded at any time (🕮 *p. 171*).

5.10.6 Loading a barcode profile

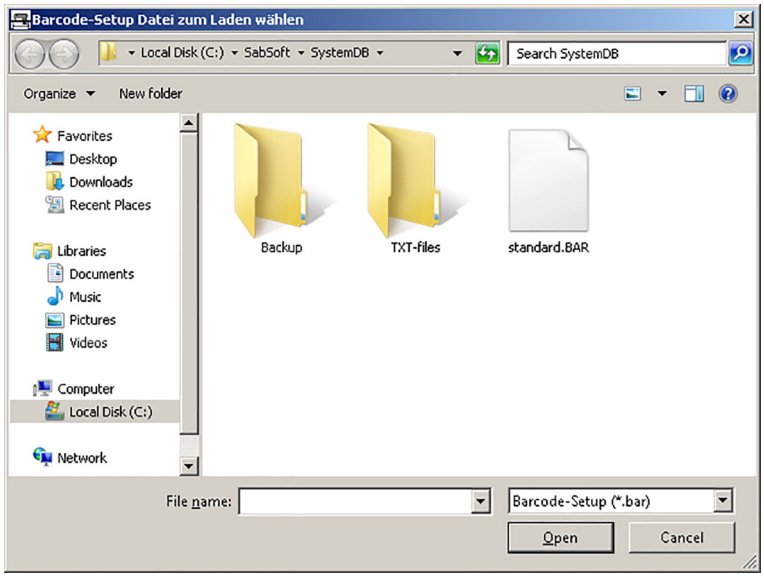
Loading a barcode profile eliminates the need to define and save all information more than once. If individual settings of this profile are changed, the original setting can be quickly restored by loading the barcode profile.

To load a barcode profile:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the `Setup` display (🕮 *p. 132*).
3. Open the Barcodes display (🕮 *p. 156*).
4. Press the **Load** button.

↳ The display switches to:

Fig. 153: Loading barcode



5. Select the desired barcode profile name.
6. Confirm with **Open**.

↳ The settings stored in the barcode profile are now the current settings.

5.11 Setting batch mode

Batch mode is a function that is used to set a specific batch size / number of sewing processes.

You can, for instance, define that one batch is composed of 5 sewing processes. In this case, all barcodes parts primary and, if applicable, all multi barcodes will only be requested once at the beginning of the sewing process, and all 5 sewing processes will be completed before the barcodes are requested again at the beginning of the 6th sewing process (📖 *p. 162*).

To activate the batch mode function:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Go to the `Components` section and activate the `With batch mode` function.

↳ The chechmark confirms that the function is active.

Information

If, at the beginning of the sewing process, multi barcodes are requested as well, go to the **Components** section and activate the function **Multiple barcodes with batch mode** instead of the `With batch mode` function.

4. Open the Barcodes display (📖 *p. 156*).
5. Specify under `Mask batch size` the position at which the batch size is defined in the barcode.
6. If you, for instance, wish the batch size to be 5, the digit to be read in the barcode must be the number 5:

   `0000`**`1`**`00000000000000000000000000`

5.12 Setting multi barcodes

The machine can be set such that up to 9 multi barcodes will be requested at the beginning of a sewing process.

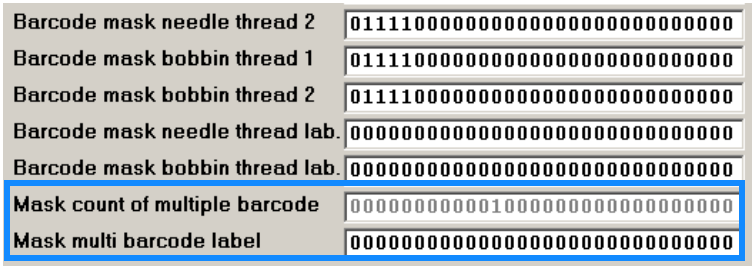
The multi barcodes will be requested after the barcodes parts primary and scanned using the hand scanner.

To set multi barcodes:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Open the Barcodes display (📖 *p. 156*).

↳ The display switches to:

Fig. 154: Setting multi barcodes



4. Specify under *Mask count of multiple barcode* how many multi barcodes are supposed to be requested.

   If you, for instance, wish to scan 5 multi barcodes, the digit to be read in the barcode must be the number 5:

   *0000***1***00000000000000000000000000*

5. Specify under *Mask multi barcode label* which information is supposed to be included in the end label barcode.

   If, for instance, the 3rd and 4th digit of the multi barcode is supposed to be transferred to the end label, define the 3rd and 4th digit as **1**:

   *00***11***00000000000000000000000000*

5.13 Preparing the end label (*Label*)

You use this option to define the layout of the end label using standard settings without the help of the LabelCreator. You specify which barcode type will be printed, which information will be contained in the end label barcode, and where on the end label the barcode will be printed.

Information

You can use the button **Define extended label printing** to add additional information to the end label.

You can use the software or the additional program *Label Creator* to create the end label (📖 *p. 189*).

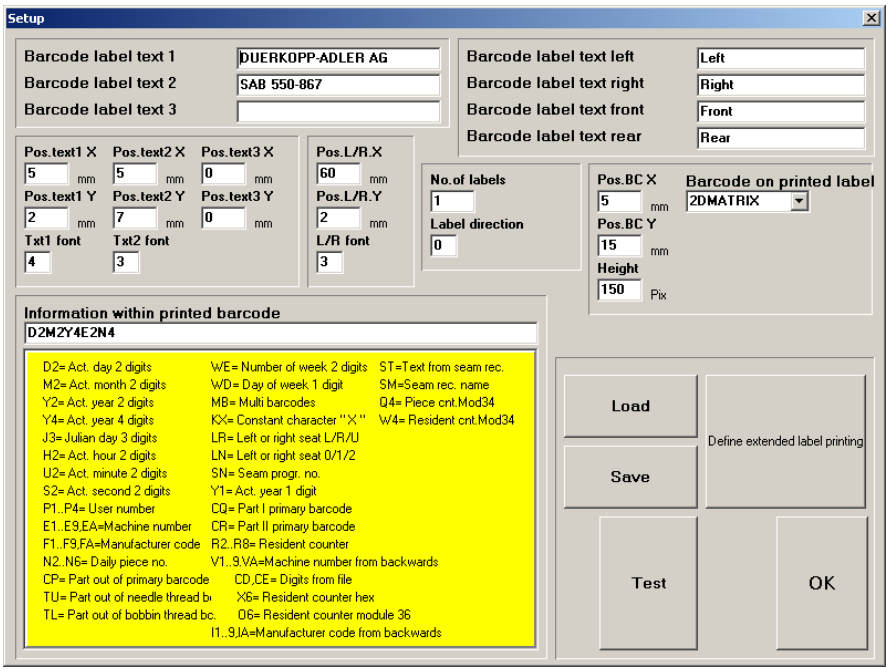
5.13.1 Opening the End label display

To open the End label display:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Press the **Label** button.

↳ The display switches to:

Fig. 155: Opening the End label display



5.13.2 Defining the end label text

You can define the text for the end label and specify its position and create the information to be included in the barcode.

To define the text:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press one of the following input fields:
   - **Barcode label text 1**
   - **Barcode label text 2**
   - **Barcode label text 3**
   - **Barcode label text left**
   - **Barcode label text right**

↳ An input window appears.

4. Enter the desired text.
5. Confirm with ↵.

Information

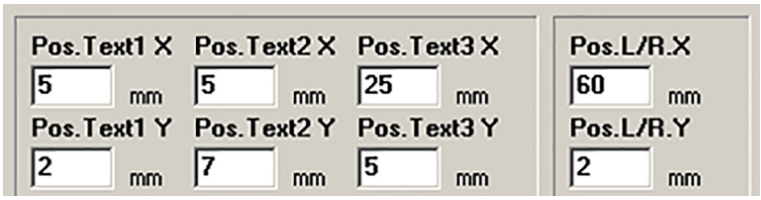
You do not have to complete all text fields.

5.13.3 Positioning the text on the end label

The positions of the individual contents on the end label are based on the coordinate axes X (width) and Y (height).

This information is specified in mm.

Fig. 156: Defining the text positions



To position the text on the end label:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Pos. text1 X** input field.

↳ An input window opens.

4. Enter the desired value.
5. Confirm with ↵.
6. Press the **Pos. text1 Y** input field.

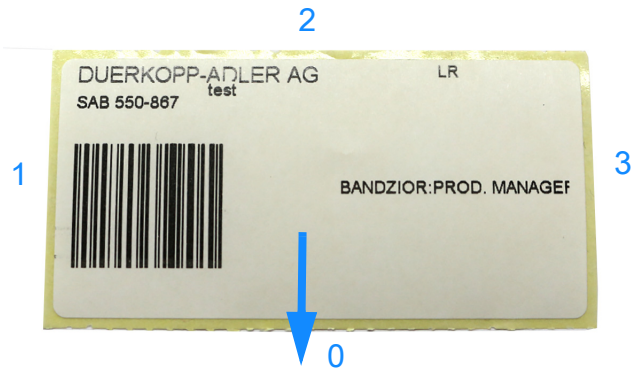
↳ An input window opens.

7. Enter the desired value.
8. Confirm with ↵.
9. To position the texts 2, 3 and left/right, repeat steps 4-9.

5.13.4 Defining the format of the end label

You can specify in which format and with which orientation the end label will be printed.

Fig. 157: Defining the format of the end label (1)

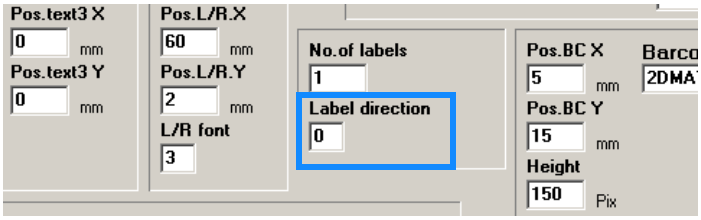


The end label is always printed out in arrow direction by the end label printer.

With increasing number, each printout will be rotated 90° clockwise.

If the print on the label matches the printout (see Fig. above), the orientation is set to 0, i.e. landscape format. However, the end label can also be printed out in portrait format (orientation 1 or 3). The layout of the end label is always the same regardless of which format has been set for the printout.

Fig. 158: Defining the format of the end label (2)



To define the format of the end label:

1. Log in with security level **2** (🕮 *p. 75*).
2. Open the End label display (🕮 *p. 164*).
3. Press the **Label direction** input field.

↳ An input window opens.

4. Enter the desired value:
   - Landscape: **0** or **2**
   - Portrait: **1** or **3**
5. Confirm with ↵.

Information

To view the end label, press the **Test** button.

The end label is printed out once.

5.13.5 Positioning the end label barcode

The position of the barcode on the end label is based on the coordinate axes X (width) and Y (height). The information is specified in mm.

To position the barcode on the end label:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Pos.BC X** input field.

↳ An input window opens.

4. Enter the desired value.
5. Confirm with ↵.
6. Press the **Pos.BC Y** input field.

↳ An input window opens.

7. Enter the desired value.
8. Confirm with ↵.

5.13.6 Defining the font size

You can define the font size to be used on the end label:

- *Text 1*
- *Text 2*
- *Text left/right*

To define the font size for each text:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Txt1 font**, **Txt2 font** or **L/R font** input field.

↳ An input window opens.

4. Enter the desired value (1-5).
5. Confirm with ↵.

5.13.7 Defining the end label barcode type

To define the end label barcode type:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Barcode on printed label type** input field.

↳ A drop-down menu opens.

4. Select the desired end label barcode type.

Information

To view the barcode, press the **Test** button.

The end label is printed out once.

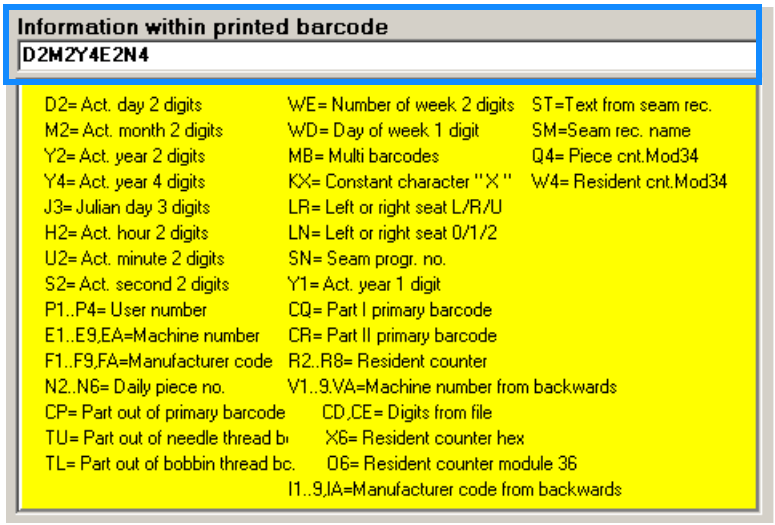
5.13.8 Defining the content of the end label barcode

You can use the acronyms provided in the yellow field to define the information to be included in the end label barcode

To define the format of the end label barcode:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).

Fig. 159: Defining the format of the end label barcode



3. Press the **Information within printed barcode** input field.

↳ An input window opens.

4. Enter the acronyms of the desired information in the desired order.

The acronyms are provided in the yellow field underneath.
The information included in the sample end label barcode comprises the date including day, month and year, the machine number and the consecutive daily part no.

Important

When entering the acronyms, pay attention to uppercase/lower case characters.

Code	Information
D2	Current day, 2 digits. E.g.: June 9 = 09
M2	Current month, 2 digits. E.g.: June 9 = 06
Y2	Current year, 2 digits. E.g.: 2016 = 16
Y4	Current year, 4 digits. E.g.: 2016 = 2016
J3	Julian date, 3 digits. E.g.: February 20 = 051
H2	Current hour, 2 digits. E.g.: 08:52:13 = 08
U2	Current minute, 2 digits. E.g.: 08:52:13 = 52
S2	Current second, 2 digits. E.g.: 08:52:13 = 13
P1	Current personnel number, 1 digit. E.g.: 1234 = 1
P2	Current personnel number, 2 digits. E.g.: 1234 = 12
P3	Current personnel number, 3 digit. E.g.: 1234 = 123
P4	Current personnel number, 4 digits. E.g.: 1234 = 1234
E1	Current machine number, 1 digit. E.g.: 567 = 5
E2	Current machine number, 2 digits. E.g.: 567 = 56
E3	Current machine number, 3 digit. E.g.: 567 = 567
F1	Manufacturer code, 1 digit. E.g.: 1357 = 1
F2	Manufacturer code, 2 digits. E.g.: 1357 = 13
F3	Manufacturer code, 3 digit. E.g.: 1357 = 135
F4	Manufacturer code, 4 digits. E.g.: 1357 = 1357
N2	Daily piece no., 2 digits. E.g.: 1234 = 34
N3	Daily piece no., 3 digits. E.g.: 1234 = 234
N4	Daily piece no., 4 digits. E.g.: 1234 = 1234
N5	Daily piece no., 5 digits. E.g.: 12345 = 12345
N6	Daily piece no., 6 digits. E.g.: 123456 = 123456
CP	The number of digits and the coding are defined using the mask given under *Prim. barcode mask printed label.*
TU	The number of digits and the coding are defined using the mask given under *Barcode mask needle thread lab.*

Code	Information
TL	The number of digits and the coding are defined using the mask given under *Barcode mask bobbin thread lab*.
WE	Calendar week (1-53)
WD	Weekday from 1 = Sunday to 7 = Saturday
MB	Part out of multi barcode
KX	Constant character
LR	Code left
LN	Code left/right 0/1/2
SN	Seam record code
Y1	Year, 1-digit. E.g.: 2017 = 7
CQ	Part 1 from barcode parts primary
CR	Part 2 from barcode parts primary
R2-R8	Resident counter
V1...3	Machine number from backwards
CD, CE	Digits from file

5.13.9 Saving an end label

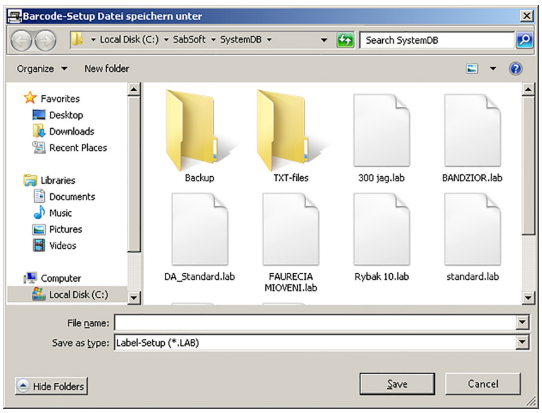
All settings of the end label can be saved as an end label profile. Loading an end label profile eliminates the need to define and save all information more than once, allowing for a quick retrieval of the information at any time.

To save the barcode settings:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Save** button.

↳ The display switches to the storage path:

Fig. 160: Saving an end label



4. Enter the desired end label profile name.
5. Press **Save** to confirm.

↳ The end label profile is stored on the hard drive of the control panel and can be loaded at any time (📖 *p. 161*).

5.13.10 Loading an end label

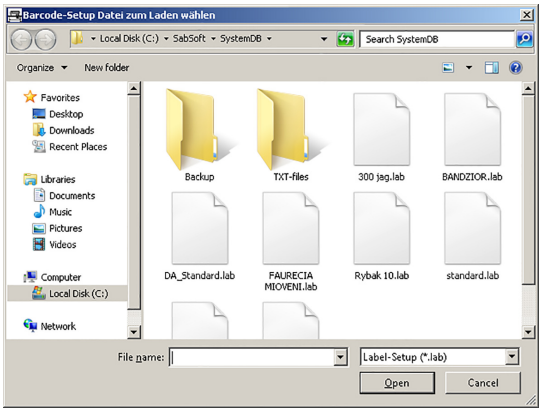
Loading an end label profile eliminates the need to define and save all information more than once, allowing for a quick retrieval of the information at any time.

To load an end label profile:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the End label display (📖 *p. 164*).
3. Press the **Load** button.

↳ The display switches to:

Fig. 161: Loading an end label



4. Select the desired end label profile.
5. Confirm with **Open**.

↳ The settings currently shown on the Label display now correspond to those included in the desired end label profile.

5.13.11 Defining extended label printing

The information listed in the table below can be included as additional information on the end label. The desired information can be placed on the end label by defining a line in the program.

Information

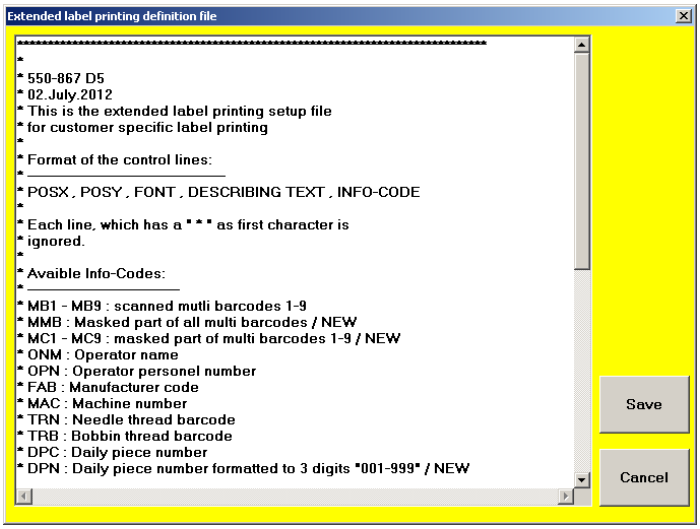
If extended label printing is active, the
information will be printed at the defined position irrespective of the loaded barcode profile.

To extend the information to be printed on the label:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Press the **Label** button.
4. Press the **Define extended label printing** button.

↳ The display switches to:

Fig. 162: Defining extended label printing



5. Select the desired acronyms.
6. Press **Save** to confirm.

Code

Code	Information
MB1-MB9	Multi barcodes 1-9
MMB	Section of the multi barcode cut out with the end label multi barcode mask

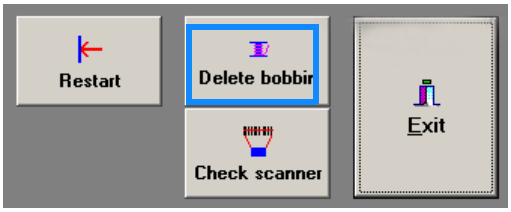
Code	Information
MC1-MC9	Section of a multi barcode 1 to 9 cut out with the end label multi barcode mask
ONM	Name of the user with security level **0**
OPN	Personnel number of the user with security level **0**
FAB	Manufacturer
MAC	Machine number/name
TRN	Needle thread barcode
TRB	Hook thread barcode
DPC	Day counter
DPN	Day counter, 3 digits (001-999)
DNF	Day counter, 4 digits
DNT	Day counter, 3 digits
ERC	Current error code
SNM	Seam record name
SRN	Seam pattern code
DAT	Date
TIM	Time
JDY	Julian date
YR2, YR4	Year, 2 digits or 4 digits
DAY	Day
MON	Month
BON	Bobbin No.
PB1-PB3	Barcodes parts primary 1, 2 and 3
SRT	End label text from seam record set
CYN	Cycle number
DT2	Date: Day, month, year - 2 digits each
RC2-RC8	Resident parts counter, 2-8 digits
GRP	Graphic print, graphic file as BMP file; instead of the text, file name without *.bmp*. File must be stored in the directory C:\SabSoft\Systemdb.
CPR	Section of the barcode parts primary 1 defined for the end label using the mask provided on the Barcode display🕮 *p. 159*
ELA	Barcode on printed label
ELB	End label barcode which was generated with SecondBC.txt
AMB	Current material barcode
DPN	Daily incrementing code of the produced piece

5.14 Deleting a bobbin

You can use the option **Delete bobbin** to delete a bobbin from the system. This is necessary whenever

- a bobbin has not yet been detected as empty by the remaining thread monitor and is supposed to be filled with a new thread
- a bobbin is supposed to be filled with a thread other than the one used previously

Fig. 163: Deleting a bobbin (1)



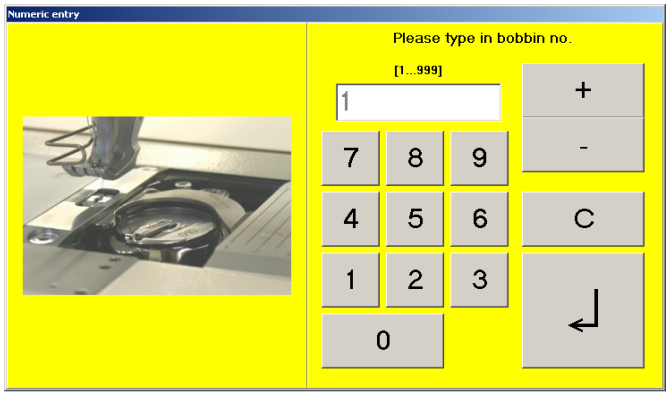
Bobbins can be deleted directly from the main screen or in the bobbin database (📖 *p. 141*).

To delete a bobbin:

1. Press the **Delete bobbin** button on the main screen.

↳ An input window appears:

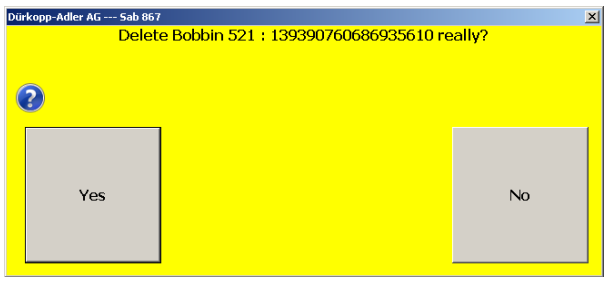
Fig. 164: Deleting a bobbin (2)



2. Enter the 3-digit bobbin number (001-999).
3. Confirm with ↵.

↳ The display switches to:

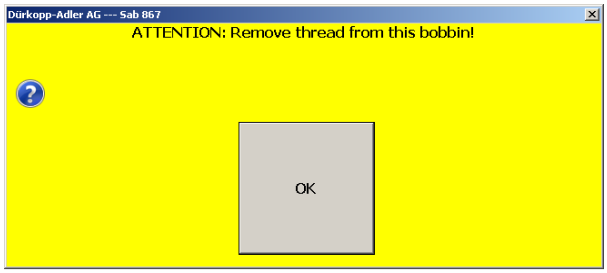
Fig. 165: Deleting a bobbin (3)



4. Press the **YES** button.

↳ The display switches to:

Fig. 166: Deleting a bobbin (4)



Important

If the remaining thread monitor has detected that the bobbin is almost empty, remove the remaining thread from the bobbin before winding on a new thread.

5. Confirm with **OK**.

5.15 Storage locations and automatic backups (*Path+netw.*)

5.15.1 Changing the storage location

The following storage locations can be changed:

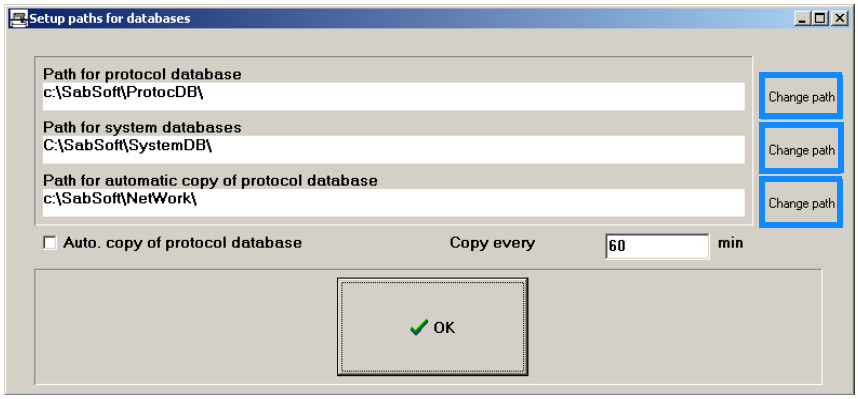
Path	Function
Path for the protocol database	Storage location of the entire protocol database 🕮 *p. 128* the individual protocol files 🕮 *p. 120*
Path for the system databases	Storage location of the system backups 🕮 *p. 125*
Path for the automatic copy of the protocol database	Storage location for copies of the entire protocol database 🕮 *p. 128* the individual protocol files 🕮 *p. 120*

To change a storage location:

1. Log in with security level **2**.
2. Open the *Setup* display (🕮 *p. 132*).
3. Press the **Path+netw.** button.

↳ The display switches to:

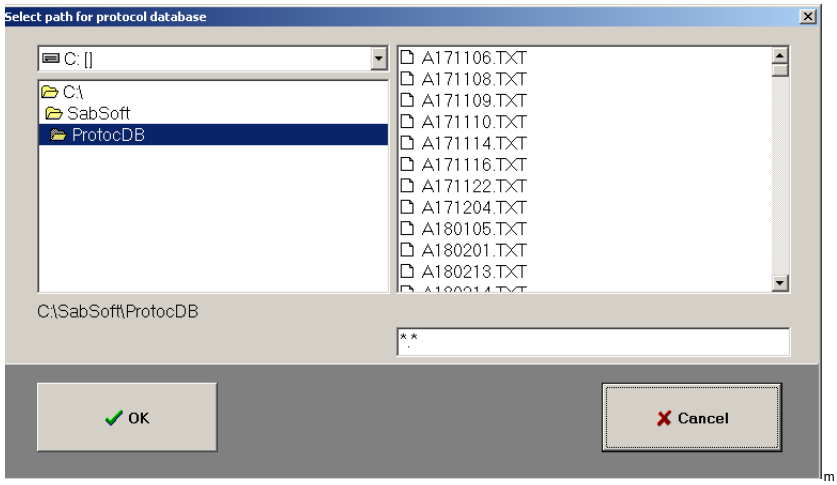
Fig. 167: Path + network (1)



4. Press the desired **Change path** button.

↳ The display switches to, for instance:

Fig. 168: Path + network (2)



5. Select the desired path/new storage location.
6. Confirm with **OK**.

5.15.2 Setting an automatic backup of the protocol database

Important

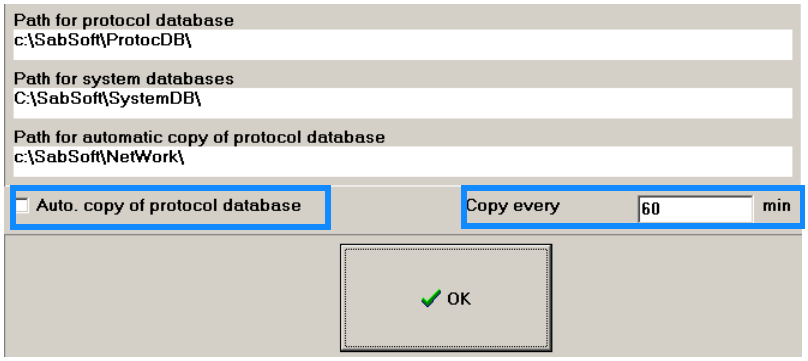
It is advisable to set automatic backups of the protocol database. Manufacturers of tearing seams are required to provide for the long-term archiving of the protocol database.

To specify if and when a backup of the protocol database will be generated automatically:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Setup` display (📖 *p. 132*).
3. Press the **Path+netw.** button.

↳ The display switches to:

Fig. 169: Setting a backup of the protocol database



4. Select **Auto. copy of protocol database**.

↳ If the checkmark is set, the function is activated, ensuring that copies of the protocol database will be saved automatically.

↳ If the checkmark is not set, the function is deactivated, and **no** automatic copies of the protocol database will be saved.

5. Press the **Copy every** input field.

↳ An input window opens.

6. Enter the desired number of minutes.

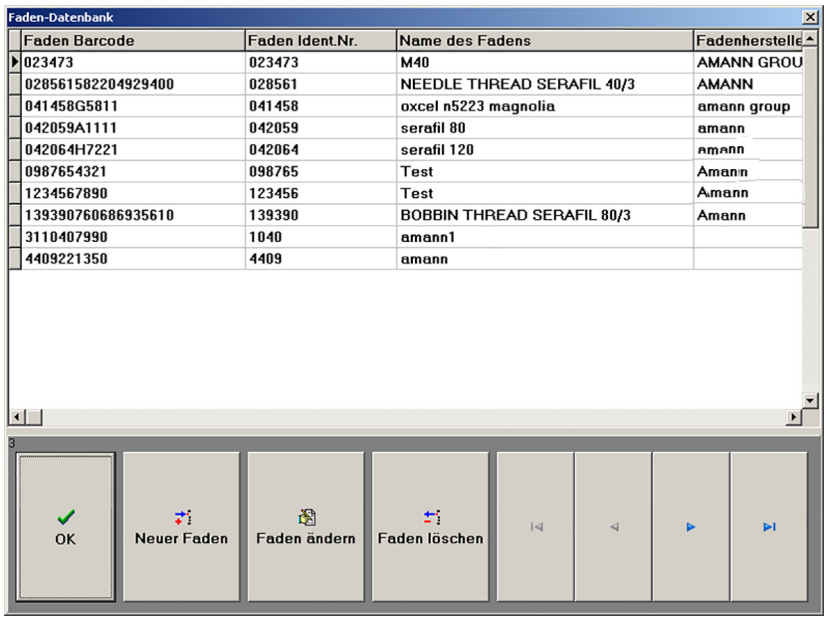
↳ In the example given, an automatic backup of the protocol database will be generated every 60 minutes.

7. Confirm with **OK**.

5.16 Thread database

All threads you wish the machine to sew with must be recorded and defined in the thread database.

Fig. 170: Thread database



The thread database allows you to

- create a new needle and/or hook thread,
- change a needle and/or hook thread,
- delete a needle and/or hook thread

5.16.1 Creating a new thread

To create a new needle or hook thread, you must re-assign the ident. number of the new thread. Every
thread has been assigned a so-called ident. number by the manufacturer. The ident. number is included on every needle or hook thread reel.

You can, for instance, specify that you wish to read the first 4 digits of the ident. number (📖 *p. 159*). The manufacturer may include such information in the first 4 digits as the type or the color of the thread.

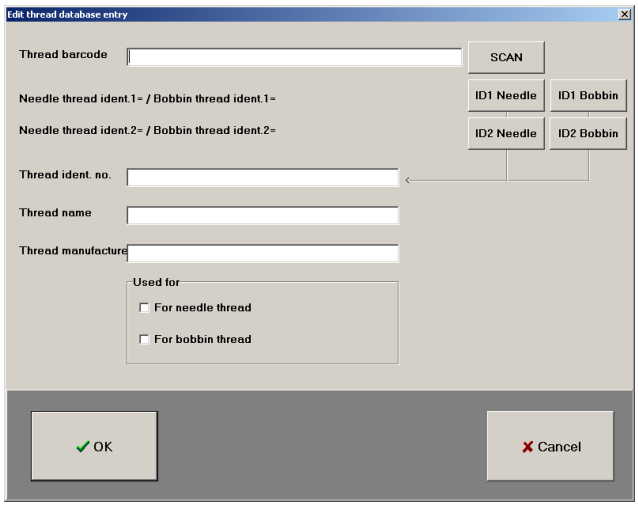
The ident. number is stored in the seam record set. A check at the beginning of the sewing process will determine if the needle and hook threads on the machine match the selected seam record set. If the threads match the seam record set, the sewing process can be started. If not, an error message will be displayed, and the sewing process cannot be started.

To create a new thread in the system:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Thread database` (📖 *p. 178*).
3. Press the **New thread** button.

↳ The display switches to:

Fig. 171: Creating a new thread



4. Register a new thread barcode by
   - scanning
   - entering
5. To enter the thread barcode, press the **Thread barcode** button.

↳ An input window opens.

6. Enter the desired ident. number.
7. Confirm with **OK**.

Or

8. To scan the thread barcode, press the **Scan** button.

↳ The display changes.

9. Use the hand scanner to scan the thread barcode.
10. Confirm with **OK**.

↳ In both cases, the thread barcode will now be recorded.

11. Enter additional data.
12. Select if the new thread is a needle and/or a hook thread.

↳ If the checkmark in front of it appears, the corresponding thread has been selected for use.

↳ If the checkmark in front of it disappears, the corresponding thread has **not** been selected for use.

13. Confirm with **OK**.

↳ The display returns to `Thread database`.

5.16.2 Changing a thread

To change a thread:

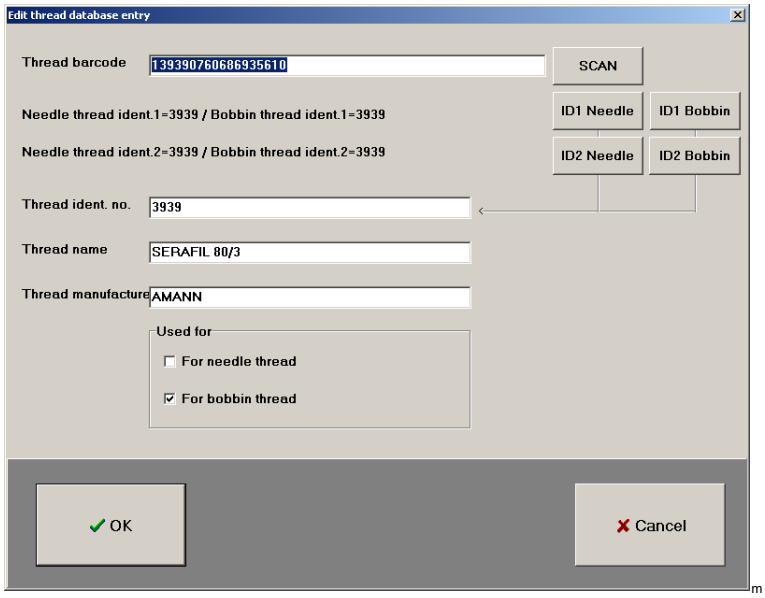
1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Thread database` (📖 *p. 178*).
3. Select the desired thread in the thread database.

↳ The small arrow in the left column marks the currently selected thread.

4. Press the **Change thread** button.

↳ The display switches to:

Fig. 172: Changing a thread



5. Edit the desired data.
6. Confirm with **OK**.

5.16.3 Deleting a thread

To delete a thread:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the `Thread database` (📖 *p. 178*).
3. Select the desired thread in the thread database.

↳ The small arrow in the left column marks the currently selected thread.

4. Press the **Delete thread** button.
5. Confirm with **OK**.

5.17 Creating a teach-in file

If the machine is equipped with electronically regulated thread tension (ETT), the needle thread tension during sewing is compared and readjusted based on a preset setpoint and tolerance range. The values of the needle thread tension in the documented seam sections are also logged and saved for each individual stitch.

The ideal value for the needle thread tension is influenced by different factors that include the sewing speed, the sewing material, the sewing yarn, the user, etc.

If the needle thread tension falls outside this tolerance range more frequently than specified, the seam will be defined as a seam of poor quality. In that case, the machine will display an error message during sewing. The sewing material is faulty and not suitable for use.

To achieve optimum sewing results across different materials and to be able to quickly and easily transfer the values of the needle thread tension to several seam record sets, you can create so-called teach-in files. Such a teach-in file contains all important values and can be linked to any seam record set.

Important

Allow only qualified specialists to create teach-in files.

Information

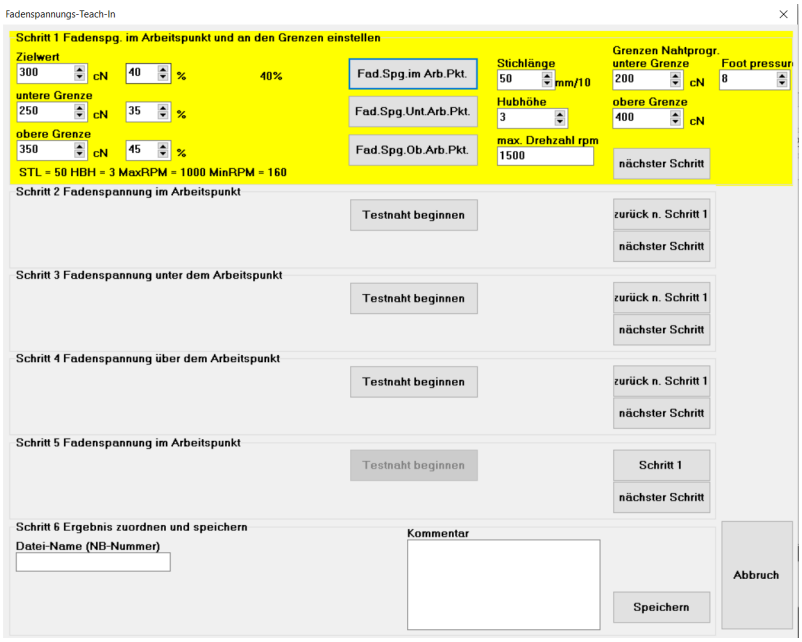
The display *Teach-In for Thread Tension* is divided into several sections (*Step 1-6*). The section currently being edited is highlighted in yellow. The sections that have already been completed are highlighted in green.

To create a teach-in file:

1. Log in with security level **2** (📖 *p. 75*).
2. Open the *Checks* display (📖 *p. 125*).
3. Press the **Thread tens.** button.
4. Press the **Teach-In** button.

↳ The display switches to:

Fig. 173: Creating a teach-in file (1)



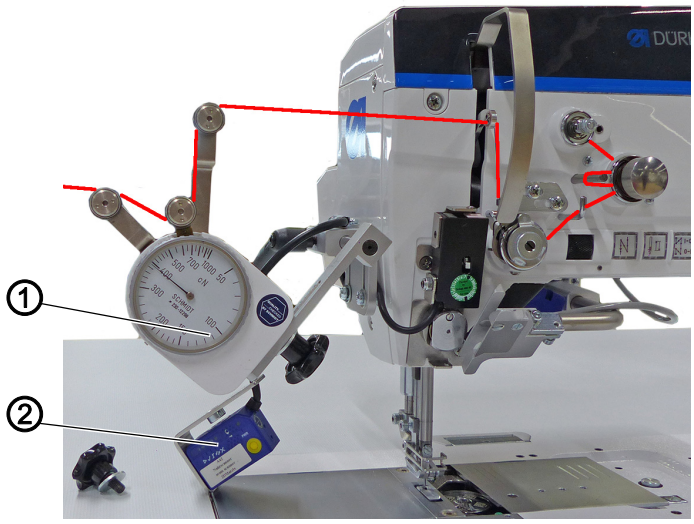
5. Enter the desired values:
   - Sewing foot pressure
   - lower limit of the thread tension
   - upper limit of the thread tension
   - Stitch length in mm/10
   - Stroke
   - maximum speed (*max. speed rpm*)
6. Enter the desired target value of the documented seam section. Use the manufacturer's specifications as a reference.

↳ The upper and lower limit will be entered automatically as soon as the target value has been defined.

7. Enter the desired values:
   - maximum speed (*max. speed rpm*)
   - Stitch length in mm/10
   - Stroke
   - Sewing foot pressure
8. Press the **T.Tens.Target Point** button.

↳ The value of the needle thread tension is adopted, and the stepper motor moves to the corresponding position.

Fig. 174: Creating a teach-in file (2)



(1) - Thread tension scale *(2) - Scanner*

9. Use a thread tension scale (1) to check the needle thread tension.
10. Disassemble the scanner (2).
11. Assemble the thread tension scale (1).
12. Secure the machine in the looping stroke position.
13. Thread the needle thread and feed it from the thread lever to the thread tension scale (1).
14. Pull off the needle thread horizontally and evenly to measure the thread tension.
15. Adjust the percentage of the needle thread tension (`Position step motor`) until the measured value matches the setpoint:
    - lower value: lower needle thread tension
    - higher value: higher needle thread tension
16. Press the **T.Tens.Target Point.** button again to allow the stepper motor to set the specified value.
17. Lift the sewing foot once.
18. Press the **T.Tens.below Target** button.

↳ The value of the needle thread tension is adopted.

19. Use a thread tension scale (1) to check the needle thread tension.
20. Adjust the percentage of the needle thread tension (`Position step motor`) until the measured value matches the setpoint:
    - lower value: lower needle thread tension
    - higher value: higher needle thread tension

Important

The percentage must not be smaller than 5 percent relative to the operating point. If a difference of 5 percent is not enough to reach the setpoint, the setpoint must be adjusted based on the measured value.

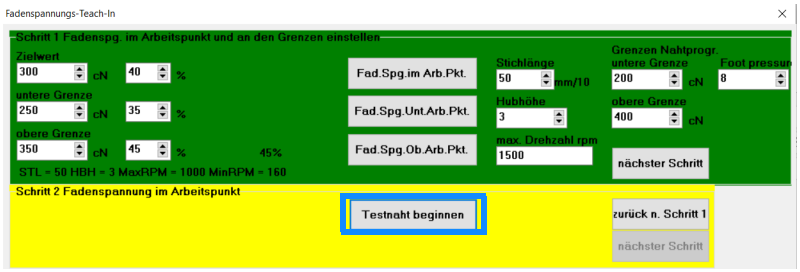
21. Press the **T.Tens.below Target** button again to allow the stepper motor to set the specified value.
22. Press the **T.Tens.above Target** button.

↳ The value of the needle thread tension is adopted.

23. Use a thread tension scale (1) to check the needle thread tension.
24. Adjust the percentage of the needle thread tension (*Position step motor*) until the measured value matches the setpoint:
    - lower value: lower needle thread tension
    - higher value: higher needle thread tension
25. Press the **T.Tens.above Target** button again to allow the stepper motor to set the specified value.
26. Press the **next Step** button.

↳ The display switches to:

Fig. 175: Creating a teach-in file (3)



↳ Step 1 and step 2 are now highlighted in green and yellow, respectively.

27. Press the **Start Sewing** button.

↳ If the test seam was completed successfully, the display switches to:

Fig. 176: Creating a teach-in file (4)

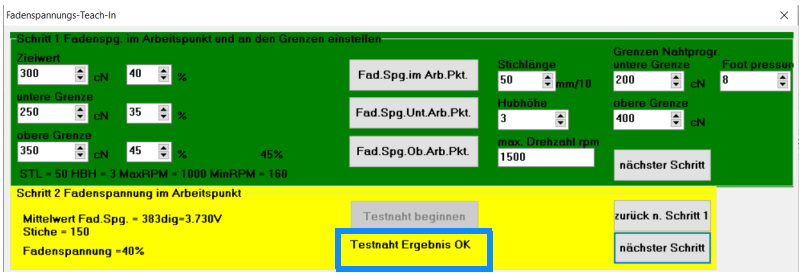
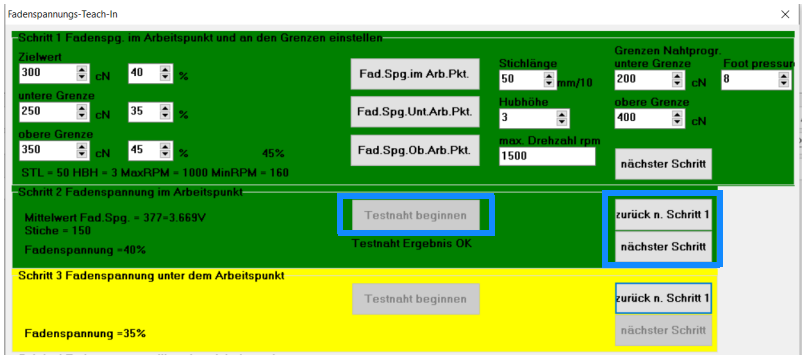


Fig. 177: Creating a teach-in file (5)



↳ The current values are listed under step 2.

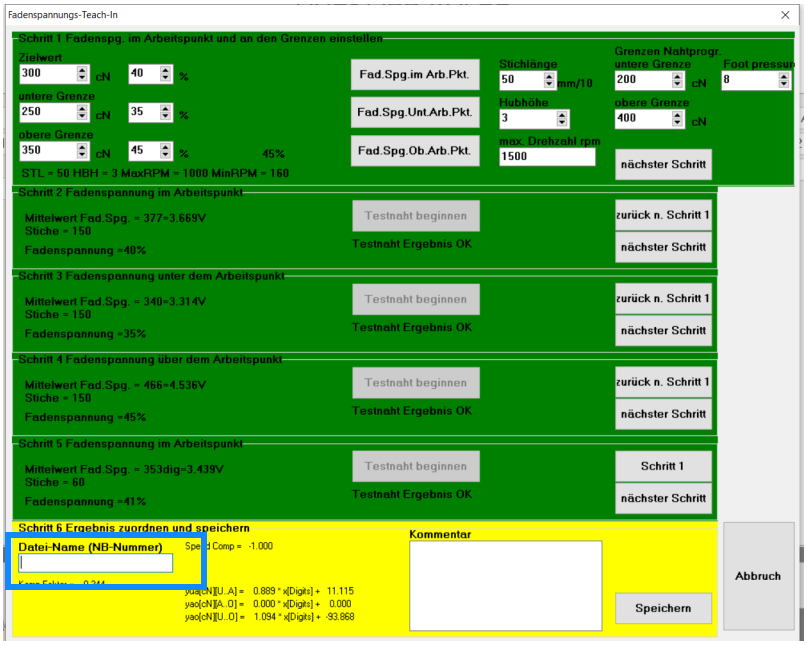
Important

At least 3 test seams need to produce a positive result before you can proceed with the next step.

28. 2 options:
    - Change values: Press the **back to Step 1** button
    - Keep testing values: Press the **next Step** button
29. For steps 3, 4, and 5, proceed as described for step 2.

↳ The display switches to:

Fig. 178: Creating a teach-in file (6)



↳ The currently measured values are listed under steps 2-5.

Important

Step 5 requires that AT LEAST 6 seams; the total number of possible seams is 15.

30. If all values are correct, press the **File name (Prog.Number)** input field.

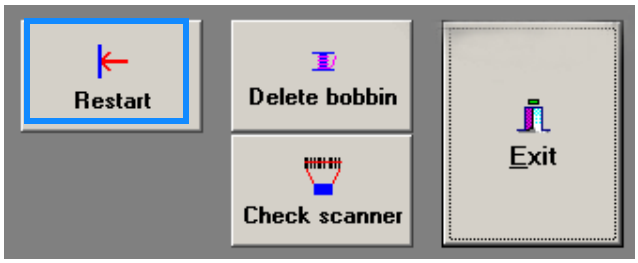
↳ An input window appears.

31. Enter the name / code of the seam record set to which the teach-in file is supposed to be linked.
32. Confirm with **OK**.
33. If necessary, add a comment to the teach-in file.
34. To save the teach-in file, press the **Save** button.

5.18 Restarting the program (*Reset*)

You can restart the program from the control panel without the need to switch the entire machine off and back on again.

Fig. 179: Restarting the program (Reset) (1)



To restart the program:

1. Press the **Reset** button on the main screen.

↳ The program is closed and restarted automatically.

Once the program has restarted, the user can log back in and continue working.

5.19 Exiting the program

You can exit the program without having to switch off the machine and the control panel.

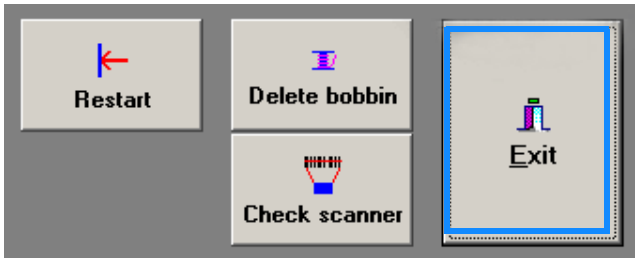
Once the program is closed, the control panel switches to the Windows user interface.

The program can be restarted as normal on the Windows user interface.

Information

The program can only be closed by users with security level **2**.

Fig. 180: Exiting the program (1)

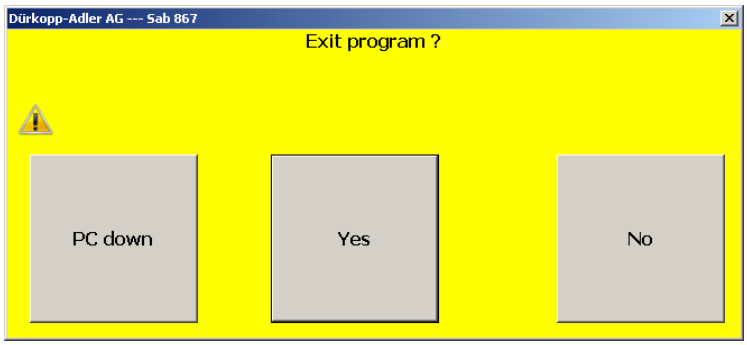


To exit the program:

1. Press the **Exit** button on the main screen.

↳ The display switches to:

Fig. 181: Exiting the program (2)



2. Press the **YES** button.

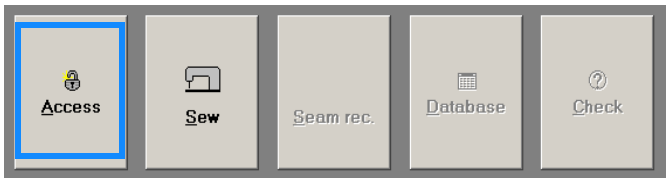
↳ The program is closed, and the Windows user interface appears.

↳ You can restart the program or shut down the PC.

5.20 Logging out of the system

Users can log in and out of the system at any time. A user switch does not require that the logged-in user log out and the new user log in.

Fig. 182: Logging out of the system (1)

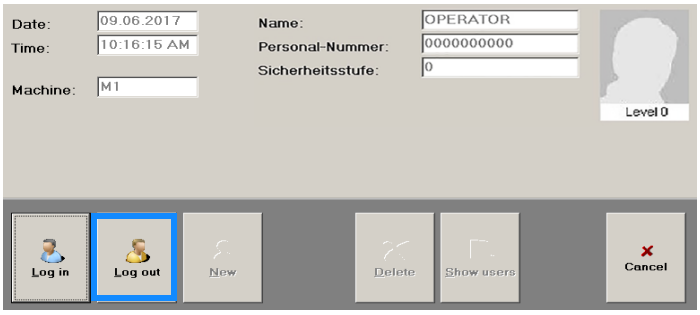


To log out of the system:

1. Press the **Access** button on the main screen.

↳ The display switches to:

Fig. 183: Logging out of the system (2)



2. Press the **Log out** button.

↳ The display switches to:

Fig. 184: Logging out of the system (3)

↳ The user has been logged out.

Information

Users with security level **0** are logged out automatically after 2 minutes of inaction.

5.21 Additional program *Label Creator*

You can use the software of the machine (📖 *p. 163*) or the additional program *Label Creator* to create the end label. *Label Creator* has been installed on the control panel and can be opened on the Windows user interface.

Label Creator offers the following main setting options:

- Defining the format and size of the end label
- Creating a 1D/2D barcode as an end label
- Inserting additional 1D/2D barcodes
- Inserting plain text under the end label barcode (*Human Readable Code*)
- Adding a check digit at the end of the barcode (*Check Digit*)
- Encoding the barcode information
- Defining the barcode type
- Defining the width and spacing of the black bars of the 1D barcode
- Defining main text:
  - Table of Contents
  - Position
  - Size
- Defining additional text:
  - Table of Contents
  - Position
  - Size
- Adding graphic (e.g. logos)

The system will create a so-called label script file after an end label has been saved. This label script file can be linked to any seam record set (📖 *p. 107*).

Important

To allow for clear identification of the end label barcode content and for retrieval of the protocol file associated with the sewing material many years later, each end label MUST be unique. Each end label is unique if the end label barcode contains, for instance, such information as the day's current date, the current production number and the machine designation.

Information

The following description refers to the factory settings. This description cannot include any individual changes such as modified storage location.

Label script files may only be created and linked to seam record sets by qualified specialists with security level **2**.

We recommend that you use the included keyboard and PC mouse at the control panel to make the entries.

If settings stored in the label script file fail to print, check the settings in the end label printer driver.

5.21.1 Preparing the end label (example)

The following example illustrates the individual steps necessary to prepare an end label. The individual steps are explained in more detail in the following subchapters.

To create a new end label using the `Label Creator`:

1. Log in with security level **2** (📖 *p. 75*).
2. To access the Windows user interface, press the Windows button on the keyboard.

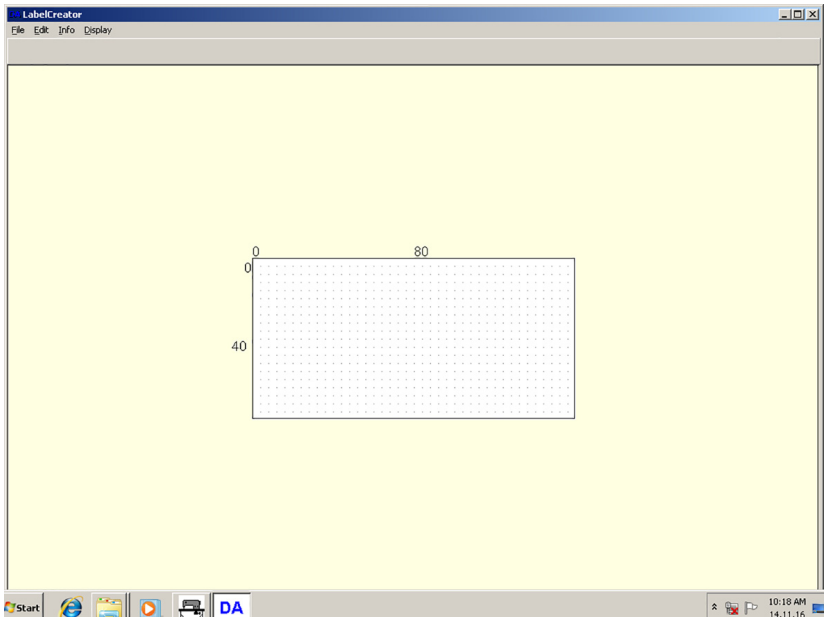
Information

To access the Windows user interface without using the keyboard, exit the program (📖 *p. 187*).

3. Open Windows Explorer.
4. Go to the `c:SabSoft_SystemDB` and open the additional program named `DALabelCreator`.

↳ The display switches to:

Fig. 185: Preparing the end label (example) (1)



You can use this program interface to

- create a new end label
- open and edit/copy the label script file of an existing end label

5. Check and, if necessary, adjust the preset size of the new end label (📖 *p. 192*).
6. Open the `Toolbox` and place it next to the end label (📖 *p. 194*).

Fig. 186: Preparing the end label (example) (2)

7. Create and insert the end label barcode (📖 *p. 197*).
8. If necessary, create and insert another barcode (📖 *p. 199*).

Important

If adding an additional barcode, you must not define this barcode as an end label as well. Otherwise, the system will display an error message when you try to save the second end label barcode.

An error message will also appear if NO barcode on the end label was defined as the end label barcode.

9. Create and insert standard text (📖 *p. 200*).
10. Create and insert variable text (📖 *p. 201*).
11. Insert a graphic; e.g. the company logo (📖 *p. 202*).
12. Save the new label script file (📖 *p. 203*).

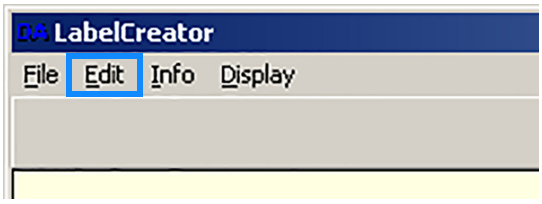
5.21.2 Default settings

You define the following default settings on each of the different displays of the *Label Creator*:

Input field	Function	Adjust setting
small bar	Widen/narrow the black and white spaces for 1D barcodes	Enter new values. Recommendation: Adopt presettings.
wide bar		
Pos X	Move content to the left/right	Enter a new value.
Pos Y	Move content up/down	Enter a new value.
Orientation	Define the orientation of the content on the end label (e.g. horizontal/vertical). 0 is the basic horizontal setting. The numbers 90, 180 and 270 represent a clockwise rotation of the content by 90° each. 📖 *p. 166*	Select the desired value.
Font size	Enter the font size in pixels. 30 pixels correspond to a font size of approx. 3 mm on the End label display. 📖 *p. 167*	Enter the desired value.

5.21.3 Adjusting the end label size

Fig. 187: Opening the toolbox (2)

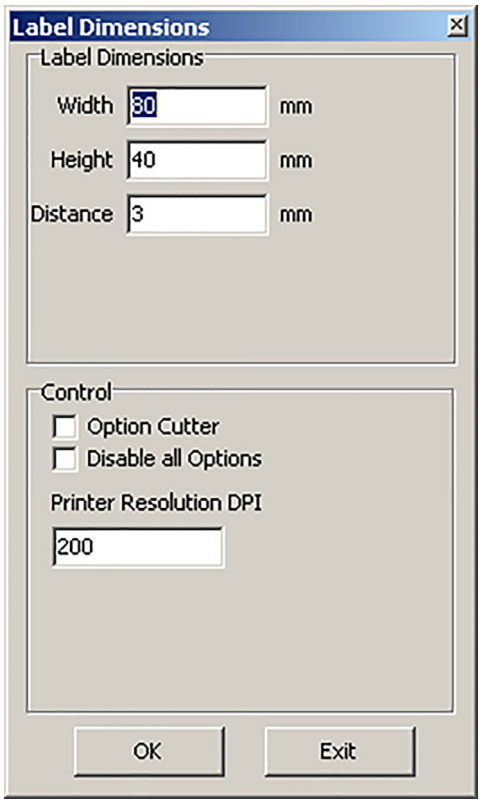


To adjust the size of a new end label:

1. Click on the *Edit* menu item.
2. Click on *Label dimensions*.

↳ The display switches to:

Fig. 188: Adjusting the end label size



3. To adjust the width of the end label, enter the desired value in mm into the **Width** input field.
4. To adjust the height of the end label, enter the desired value in mm into the **Height** input field.
5. To adjust the spacing between two end labels in the end label printer, enter the desired value in mm into the **Distance** input field.
6. To specify which end label is supposed to be cut after being printed by the end label printer, set the checkmark at **Option Cutter**.

Information

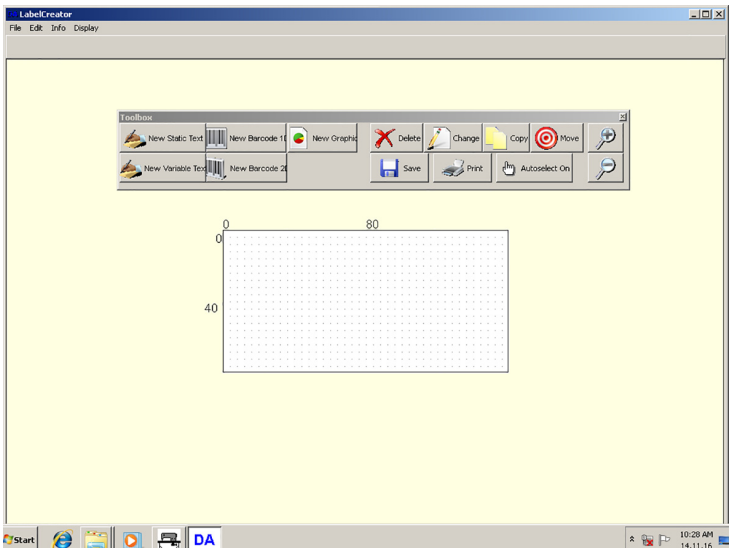
If you do not wish to have the end label cut by the end label printer, but want to, for instance, tear off the label manually, you must not set the checkmark at **Option Cutter**. The included end label printer does not come with a cutting device.

7. To set the resolution of the end label printer, enter the corresponding DPI number in the *Printer Resolution DPI* input field.
8. Press **OK** to save.

5.21.4 Opening the *Toolbox*

The *Toolbox* is a menu bar that can be placed on the program interface of the *Label Creator*. You can use the *Toolbox* to directly access all important functions necessary to create an end label.

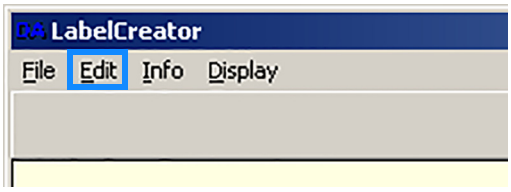
Fig. 189: Opening the toolbox (1)



Information

The *Toolbox* contains all options available under the menu item **Edit**.

Fig. 190: Opening the toolbox (2)



To open the *Toolbox*:

1. Click on the *Edit* menu item.
2. Select *Show Toolbox*.

↳ The *Toolbox* is displayed on the main interface.

Fig. 191: Opening the toolbox (3)

3. Move the *Toolbox* to the position of your choice on the main interface.

5.21.5 Inserting contents

The following contents can be added to the end label:

- Standard text (**New Static Text,** 🕮 *p. 200*)
- Variable text (**New Variable Text,** 🕮 *p. 201*)
- 1D barcode (**New Barcode 1D,** 🕮 *p. 197*)
- 2D barcode (**New Barcode 2D,** 🕮 *p. 197*)
- Graphic (**New Graphic**, 🕮 *p. 202*)

To insert new contents:

1. Press the desired button in the `Toolbox`.
2. Click the desired position on the end label at which you wish to insert the content.

   The marking always refers to the corner at the top left.

↳ The display switches to the setting options available for the corresponding content.

3. Adjust the content.
4. Press **OK** to save.

Important

Every end label MUST have an end label barcode.

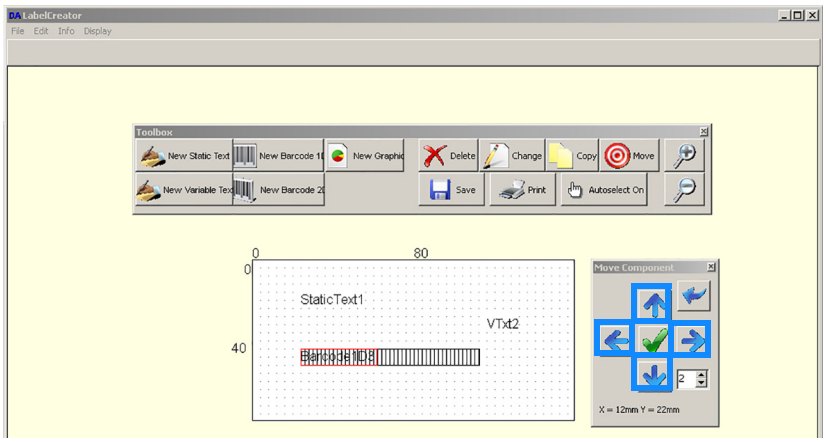
5.21.6 Moving contents

To move contents on the end label:

1. To move contents, press the **Move** button in the *Toolbox*.
   The marking always refers to the corner at the top left.
2. Select the desired content by clicking in the corner at the top left.

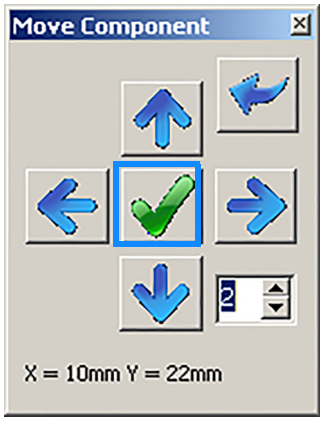
↳ The display *Move component* appears:

Fig. 192: Moving contents (1)



3. To move content, click on the blue arrow buttons.

Fig. 193: Moving contents (2)



4. Once the content has been positioned correctly, click on the green checkmark.

↳ The display *Move component* disappears.

5.21.7 Creating a barcode

To create a barcode:

1. Press the desired button in the *Toolbox* (**New Barcode 1D/2D**).
2. Click the desired position on the end label at which you wish to insert the barcode.

   The marking always refers to the corner at the top left.

↳ The display switches to the setting options available for the corresponding barcode:

Fig. 194: Creating an end label barcode (1)

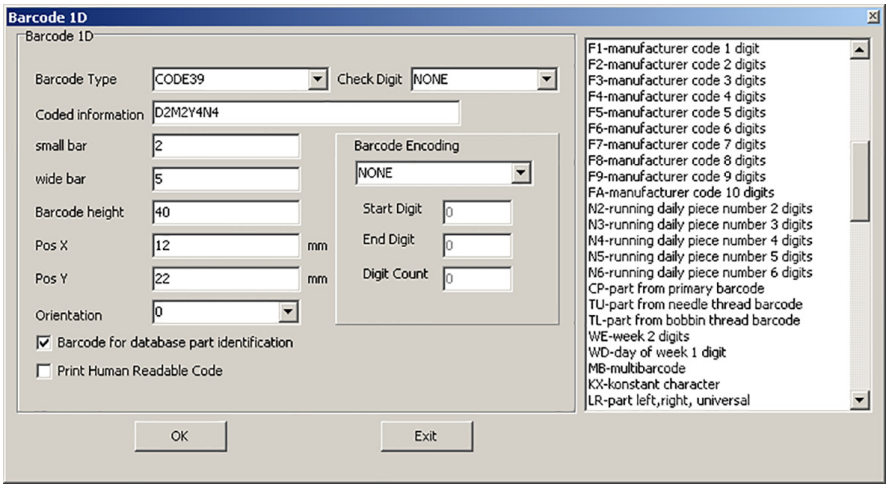
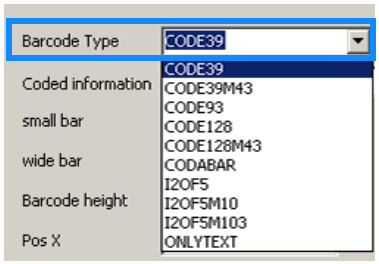


Fig. 195: Creating an end label barcode (2)

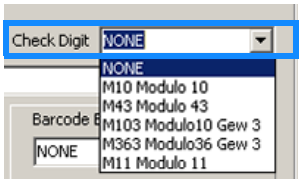


3. Select the desired barcode type from the drop-down menu of the **Barcode Type** field.

Important

Select the same barcode type here that has been set as the hand scanner barcode on the *Setup* display (📖 *p. 138*).

Fig. 196: Creating an end label barcode (3)



4. If you do not wish to add a check digit to the barcode, access the drop-down menu of the **Check Digit** input field and select the option **NONE**.
5. To add a check digit to the barcode, access the drop-down menu of the **Check Digit** input field and select the option of your choice.
6. Enter the acronyms of the information you wish to include in the barcode into the **Coded Information** input field.

Information

Here, you can enter all information that is listed with an acronym in the list on the right. You can add the desired acronyms by double-clicking in the list on the right or by entering them into the **Coded Information** input field using the keyboard.

7. If you do not wish to encode the barcode, access the drop-down menu of the **Barcode Encoding** input field and select the option **NONE**.
8. To encode the barcode, access the drop-down menu of the **Barcode Encoding** input field and select the **Modulo36** option.

Information

If you wish to encode, but not shorten, the barcode, do not enter any values into the **Start Digit**, **End Digit** and **Count Digit** input fields.

If the barcode becomes too long, you can shorten it to the desired length without losing any information.

If the barcode including all information has a length of, for instance, 18 digits, but may only be 15 digits long, encode the barcode according to **Modulo36** and enter the following into the **Start Digit**, **End Digit** and **Count Digit** input fields:

- **Start Digit**:1
- **End Digit**: 18
- **Digit Count**: 15

While it will be encoded according to **Modulo36** and converted to the shorter 15 digits, the barcode will still contain all desired information.

9. Adjust the desired default settings (📖 *p. 192*).
10. To adjust the height of the barcode, modify its value in the **Barcode height** input field.
11. If the barcode is the end label barcode, set a checkmark at **Barcode for database part identification**.

Important

You must define 1 barcode on the end label as the end label barcode. Otherwise, an error message will be displayed.

12. If you wish to print the information contained in the barcode as plain text on the end label, set a checkmark at **Print Human Readable Code**.

Information

If plain text has been set in this label script file but the text fails to print, check the settings in the end label printer driver.
The settings in the end label printer driver may overwrite the settings of the individual label script files.

Some changes to settings in the end label printer driver may require a restart.

5.21.8 Adding an additional barcode

You can add any number of barcodes on the end label (📖 *p. 197*).

Important

You must define 1 barcode on the end label as the end label barcode. An error message will be displayed if

- no barcode has been defined as the end label barcode.
- more than 1 barcode has been defined as the end label barcode.

5.21.9 Creating standard text

You can create standard text on the end label which will be repeated on all end labels (*Static Text*).

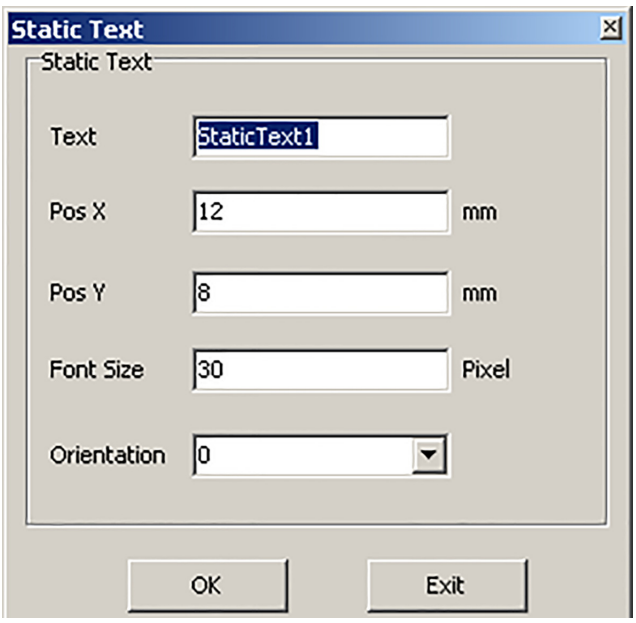
To create standard text:

1. Click the **New Static Text** button in the *Toolbox*.
2. Click the desired position on the end label at which you wish to insert the standard text.

   The marking always refers to the corner at the top left.

↳ The display *Static Text* appears:

Fig. 197: Creating standard text



3. Enter the desired text into the **Text** input field.

Information

If you wish to place an additional character such as an * at the beginning and the end of the text information, enter the asterisk as static text.

4. Adjust the desired default settings (📖 *p. 192*).
5. Press **OK** to save.

5.21.10 Creating variable text

You can insert text on the end label that will change. This text may comprise, for instance, the name of the user or the current production number of the corresponding day.

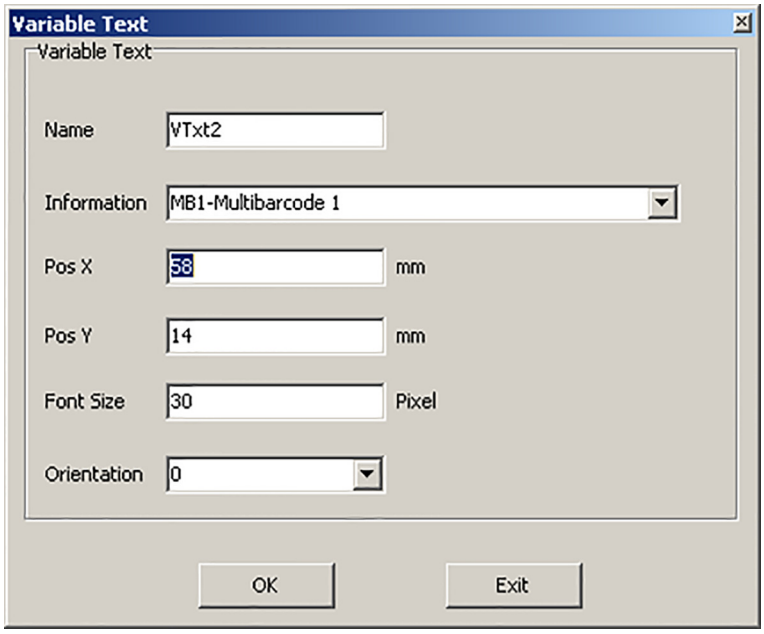
To create variable text on the end label:

1. Press the **New Variable Text** button in the *Toolbox*.
2. Click the desired position on the end label at which you wish to insert the variable text.

   The marking always refers to the corner at the top left.

↳ The display *Variable Text* appears:

Fig. 198: Creating variable text



3. If necessary, adjust the **Name** under which the variable text on the end label will be displayed on the program interface.
4. Select the desired option from the drop-down menu in the **Information** input field.

   This is the information that will be printed on the end label as variable text.
5. Adjust the desired default settings (📖 *p. 192*).
6. Press **OK** to save.

5.21.11 Inserting a graphic

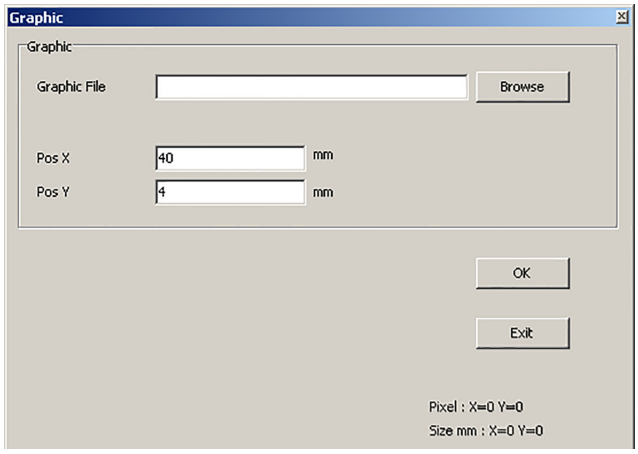
To insert a graphic:

1. Click the **New Graphic** button in the *Toolbox*.
2. Click the desired position on the end label at which you wish to insert the graphic.

   The marking always refers to the corner at the top left.

↳ The display *Graphic* appears:

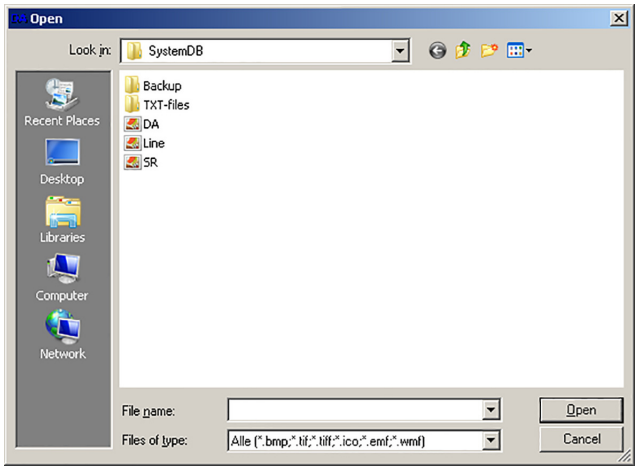
Fig. 199: Inserting a graphic (1)



3. To select a **bmp** file, click on the **Graphic File** input field.

↳ The display switches to:

Fig. 200: Inserting a graphic (2)



4. Select the desired **bmp** file.
5. Confirm with **Open**.
6. Adjust the desired default settings (📖 *p. 192*).
7. Press **OK** to save.

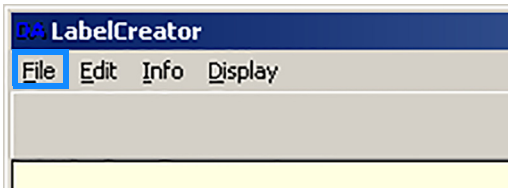
5.21.12 Saving a label script file

If you created a new end label, you need to save it after you are finished. When the label is saved, a label script file is generated that can be linked to the seam record sets of your choice (📖 *p. 107*).

Important

Save the new end label before closing the `Label Creator`. Otherwise, all data will be lost.

Fig. 201: Saving a label script file (1)

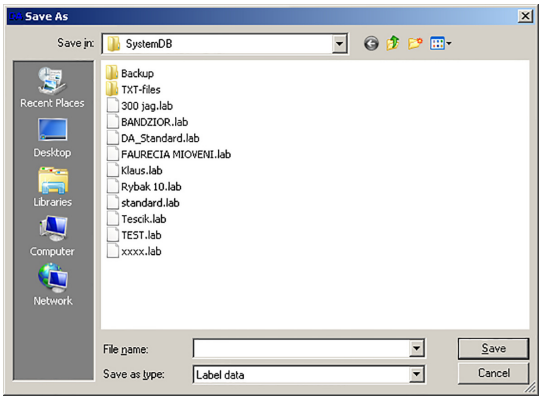


To save a label script file:

1. Click on the `File` menu item.
2. Select `Save as`.

↳ The display switches to:

Fig. 202: Saving a label script file (2)



3. Enter the desired file name into the **File name** input field.
4. Save the information with **Save**.

Important

You must define 1 barcode on the end label as the end label barcode. An error message will be displayed if

- no barcode has been defined as the end label barcode.
- more than 1 barcode has been defined as the end label barcode.

Information

It is advisable to store all label script files in the same storage location.

5.21.13 Printing a test end label

The program interface of the *Label Creator* will not display the end label exactly as it is printed out.

To view what the end label will actually look like, you can use the test printing function.

To print the end label for testing purposes:

1. Click the **Print** button in the *Toolbox*.

↳ An end label with the current settings is printed.

2. Adjust the current settings if necessary.

Information

You can also start the test print by opening the *File* menu item and selecting the *Test Printing* option.

5.22 Additional program *SABSearch*

A second additional program is included on the control panel:
The search program *SABSearch*.

You can use *SABSearch* to scan the protocol database for the following criteria:

- *Date* (Date)
- *Time* (Time)
- *Barcode on printed label* (End label barcode number)
- *Barcode part 1* (Barcode parts primary 1)
- *Barcode part 2* (Barcode parts primary 2)
- *Barcode part 3* (Barcode parts primary 3)
- *Barcode needle thread* (Needle thread barcode)
- *Barcode bobbin thread* (Hook thread barcode)
- *Bobbin number* (Bobbin number)
- *Username* (User name)
- *Name of seam record* (Name of the protocol file)
- *Machine code* (Machine designation)
- *Manufacturer code* (Manufacturer name)
- *Errorcode* (Error code)
- *Multi barcodes*

A prerequisite for a successful search is that you can access the storage location of the protocol database from the machine (📖 *p. 175*).

The search program has been installed on the control panel and can be opened on the Windows user interface.

Important

Access to `SABSearch` is password-protected. The password is intended only for users with security level 2 and cannot be changed. The password is: **daag925**.

5.22.1 Performing a search (example)

To search for a protocol file using `SABSearch`:

1. Log in with security level **2** (📖 *p. 75*).
2. To access the Windows user interface, press the Windows button on the keyboard.

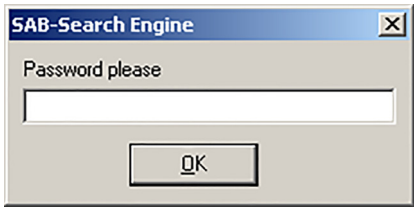
Information

To access the Windows user interface without using the keyboard, exit the program, (📖 *p. 187*).

3. Open Windows Explorer.
4. Access the directory `c:SabSoft` and open the program `SABSearch`.

↳ The display switches to:

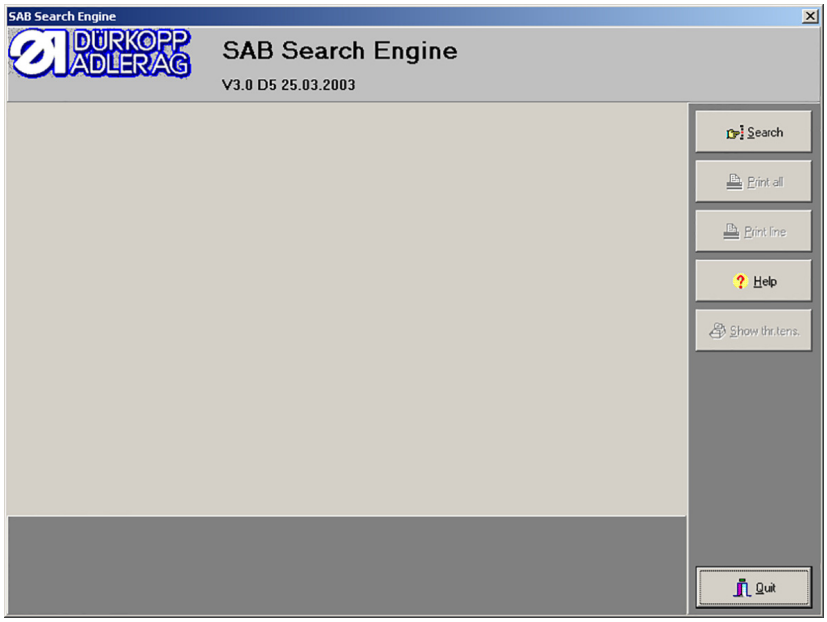
Fig. 203: Performing a search (example) (1)



5. Enter the password (📖 *p. 204*).

↳ The display switches to:

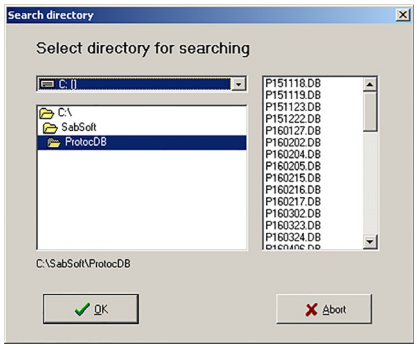
Fig. 204: Performing a search (example) (2)



6. Click on the **Search** button.

↳ The display switches to:

Fig. 205: Performing a search (example) (3)

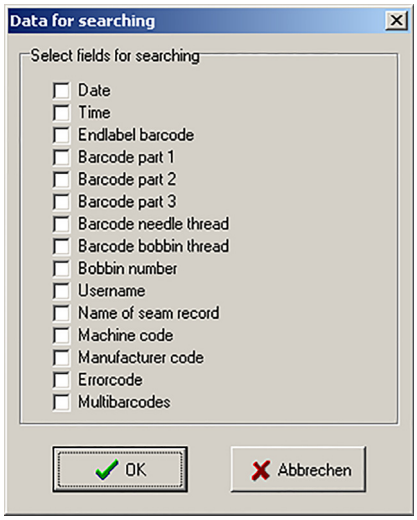


7. If necessary, adjust the storage location on the left at which the protocol database(s) is/are stored that you wish to scan.
8. If necessary, select a specific protocol database of a single day from the list on the right.

   If you do not select a specific protocol database, the program will scan all protocol databases stored in the storage location.
9. Confirm with **OK**.

↳ The display switches to:

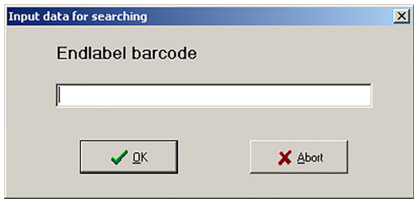
Fig. 206: Performing a search (example) (4)



10. Set a checkmark at the desired search criteria.
11. Confirm with **OK**.

↳ The display switches to, for instance:

Fig. 207: Performing a search (example) (5)



12. Enter plain text (text below the end label barcode).

Information

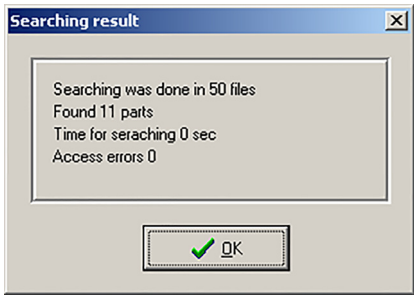
This text must be entered manually. You cannot scan the barcode here.

---

13. Confirm with **OK**.

↳ The display switches to, for instance:

Fig. 208: Performing a search (example) (6)

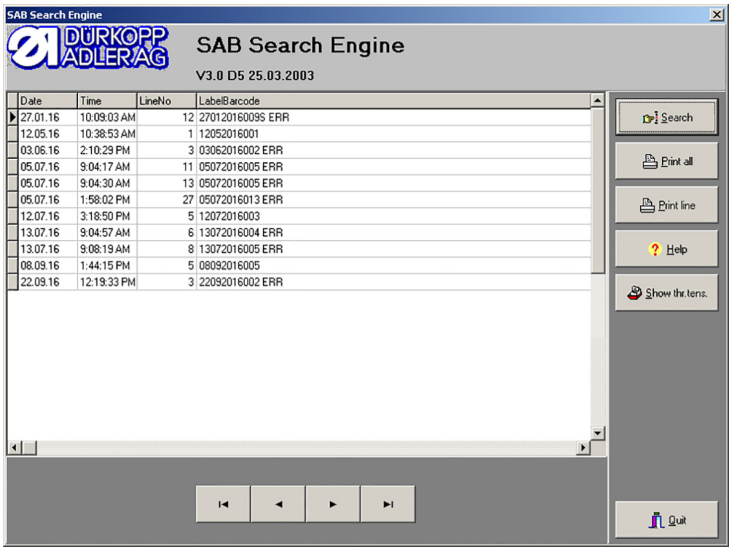


The display will start by showing a summary of the search.
In this example, the search scanned for protocol files that document the sewing of the sewing material by a specific user.

14. Confirm with **OK**.

↳ The display switches to:

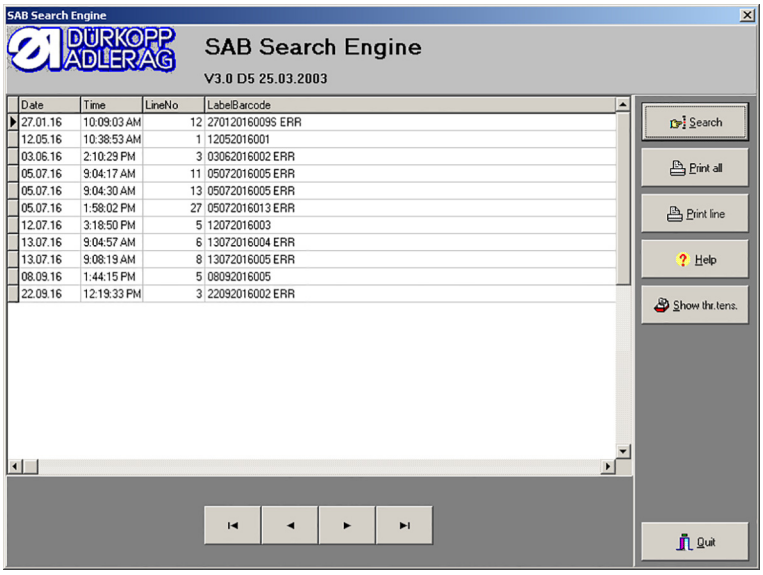
Fig. 209: Performing a search (example) (7)



↳ This search produced 11 protocol files that document the sewing of the sewing material by a specific user.

5.22.2 Exiting *SABSearch*

Fig. 210: Exiting SABSearch (1)

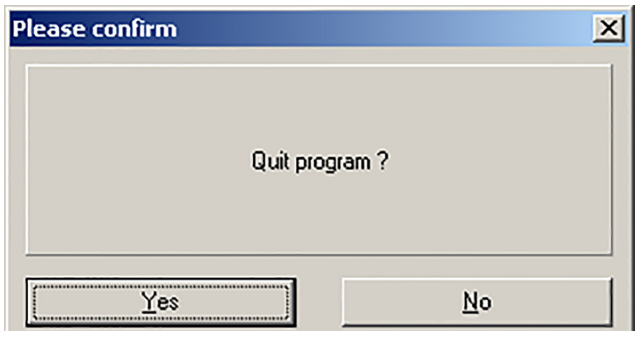


To exit the additional program SABSearch:

1. Click on the **Quit** button.

↳ The display switches to:

Fig. 211: Exiting SABSearch (2)



2. Confirm with **Yes**.

6 Maintenance

WARNING

Risk of injury from sharp parts!

Punctures and cutting possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

WARNING

Risk of injury from moving parts!

Crushing possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

This chapter describes maintenance work that needs to be carried out on a regular basis to extend the service life of the machine and achieve the desired seam quality.

Advanced maintenance work may only be carried out by qualified specialists (🕮 *Service Instructions)*.

Maintenance intervals

Work to be carried out	Operating hours			
	8	40	160	500
Check the bobbins for wear and damage and replace them if necessary			●	
Cleaning				
Removing sewing dust and thread residues	●			
Lubricating				
Lubricating the machine head	●			
Lubricating the hook		●		
Servicing the pneumatic system				
Adjusting the operating pressure	●			
Draining the water condensation	●			
Cleaning the filter element		●		

6.1 Cleaning

WARNING

Risk of injury from flying particles!

Flying particles can enter the eyes, causing injury.

Wear safety goggles.
Hold the compressed air gun so that the particles do not fly close to people.
Make sure no particles fly into the oil pan.

NOTICE

Property damage from soiling!

Sewing dust and thread residues can impair the operation of the machine.

Clean the machine as described.

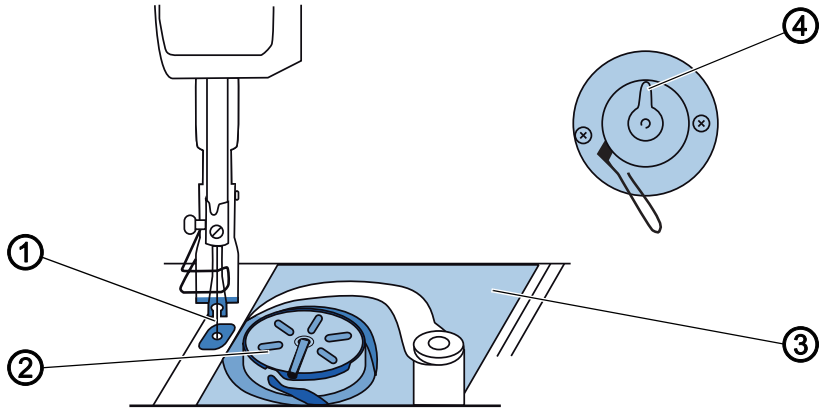
NOTICE

Property damage from solvent-based cleaners!

Solvent-based cleaners will damage paintwork.

Use only solvent-free substances for cleaning.

Fig. 212: Cleaning



(1) - Area around the needle
(2) - Hook
(3) - Area under the throat plate
(4) - Knife on the winder

Areas particularly susceptible to soiling:

- Knife on the winder (4)
- Area under the throat plate (3)
- Hook (2)
- Area around the needle (1)

To clean the machine:

1. Switch off the machine.
2. Remove any sewing dust and thread residues using a compressed air gun or a brush.

Important

If you wish to clean the machine with cleaning agents, do not use just any cleaner. To prevent damage to the surfaces, use the cleaner MONOCLEAN X400.
Follow the instructions on how to use this cleaning agent to prevent damage to the machine.

Information

If the degree of pollution of the SSD is above 80%, an error message appears on the control panel. Then clean the area on the hook and sensors on the sensor block with a cloth.

6.2 Lubricating

CAUTION

Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil.
If oil has come into contact with your skin, wash the affected areas thoroughly.

NOTICE

Property damage from incorrect oil!

Incorrect oil types can result in damage to the machine.

Only use oil that complies with the data in the instructions.

CAUTION

Risk of environmental damage from oil!

Oil is a pollutant and must not enter the sewage system or the soil.

Carefully collect up used oil.
Dispose of used oil and oily machine parts in accordance with national regulations.

The machine is equipped with a central oil-wick lubrication system.
The bearings are supplied from the oil reservoir.

For topping off the oil reservoir, use only lubricating oil **DA 10** or oil of equivalent quality with the following specifications:

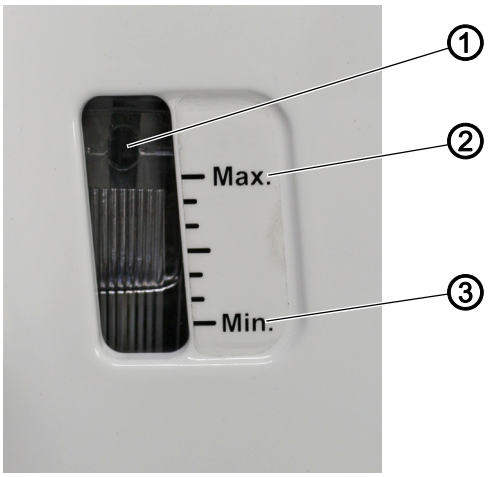
- Viscosity at 40 °C: 10 mm²/s
- Flash point: 150 °C

You can order the lubricating oil from our sales offices using the following part numbers:

Container	Part no.
250 ml	9047 000011
1 l	9047 000012
2 l	9047 000013
5 l	9047 000014

6.2.1 Lubricating the machine head

Fig. 213: Lubricating the machine head



(1) - Refill opening
(2) - Maximum level marking
(3) - Minimum level marking

Proper setting

The oil level is between the minimum level marking (3) and the maximum level marking (2).

To lubricate the machine head:

1. Check the oil level indicator at the inspection glass every day.
2. If the inspection glass lights up red, the machine is not sufficiently supplied with oil.
3. If the oil level is below the minimum level marking (3): Pour oil through the refill opening (1) but no higher than the maximum level marking (2).

6.2.2 Lubricating the hook

CAUTION

Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Switch off the machine before lubricating the hook. Carry out function tests with utmost caution when the sewing machine is switched on.

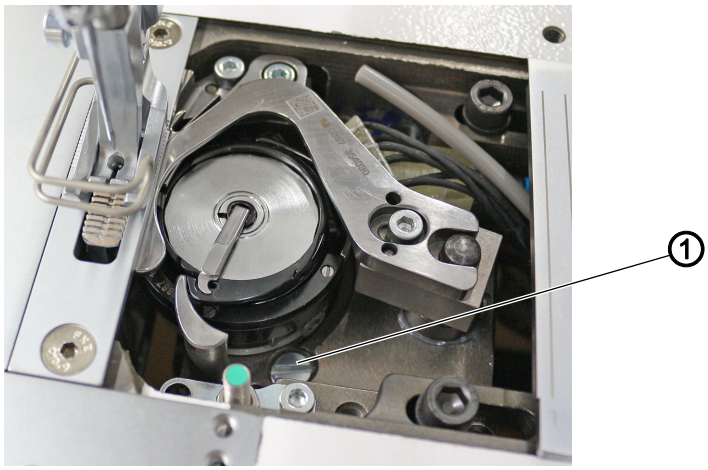
The approved oil quantity for hook lubrication is a factory specification.

Proper setting

1. Hold a piece of blotting paper next to the hook.
2. Allow the machine to run without thread and sewing material for 10 seconds with the sewing feet lifted and at a speed of 3000.

↳ The blotting paper will show a thin strip of oil when sewing is complete.

Fig. 214: Lubricating the hook



(1) - Screw

To lubricate the hook:

1. Turn the screw (1):
   - **release more oil:** Turn screw (1) counterclockwise
   - **release less oil:** Turn screw (1) clockwise

Important

The released amount of oil does not change until the operating time has run a few minutes. Sew for several minutes before you check the setting again.

6.3 Servicing the pneumatic system

6.3.1 Adjusting the operating pressure

NOTICE

Property damage from incorrect adjustment!

Incorrect operating pressure can result in damage to the machine.

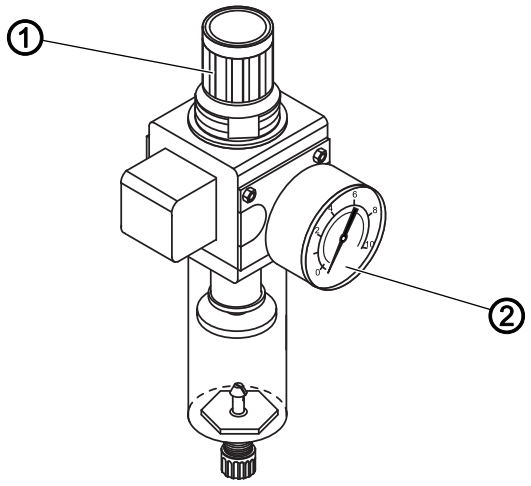
Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical Data** (📖 *p. 261*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than ± 0.5 bar.

Check the operating pressure on a daily basis.

Fig. 215: Adjusting the operating pressure



(1) - Pressure regulator *(2) - Pressure gage*

To adjust the operating pressure:

1. Pull the pressure regulator (1) up.
2. Turn the pressure regulator until the pressure gage (2) indicates the proper setting:
   - Increase pressure = turn clockwise
   - Reduce pressure = turn counterclockwise
3. Push the pressure regulator (1) down.

6.3.2 Draining the water-oil mixture

NOTICE

Property damage from excess liquid!

Too much liquid can result in damage to the machine.

Drain liquid as required.

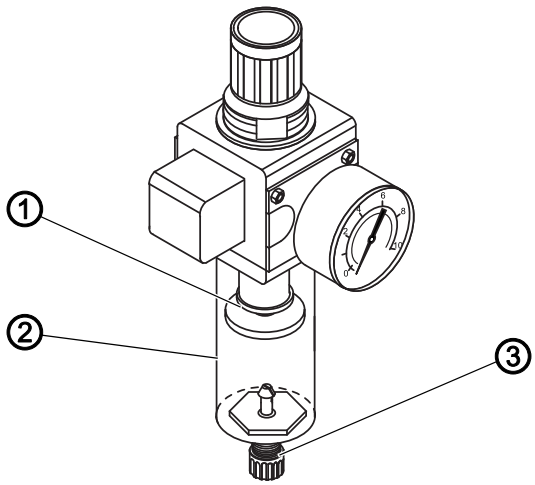
The collection tray (2) of the pressure regulator will show accumulation of a water-oil mixture.

Proper setting

The water-oil mixture must not rise up to the level of the filter element (1).

Check the level of the water-oil mixture in the collection tray (2).

Fig. 216: Draining the water-oil mixture



(1) - Filter element
(2) - Collection tray
(3) - Drain screw

To drain the water-oil mixture:

1. Disconnect the machine from the compressed air supply.
2. Place the vessel under the drain screw (3).
3. Loosen the drain screw (3) completely.
4. Allow the water-oil mixture to drain into the vessel.

5. Tighten the drain screw (3).
6. Connect the machine to the compressed air supply.

6.3.3 Cleaning the filter element

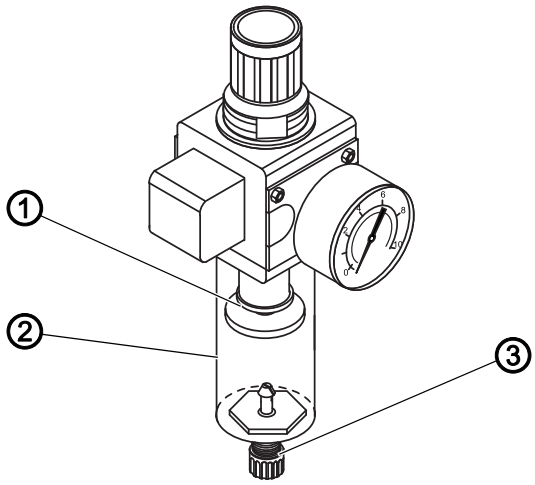
NOTICE

Damage to the paintwork from solvent-based cleaners!

Solvent-based cleaners damage the filter.

Use only solvent-free substances for washing out the filter tray.

Fig. 217: Cleaning the filter element



(1) - Filter element
(2) - Collection tray
(3) - Drain screw

To clean the filter element:

1. Disconnect the machine from the compressed air supply.
2. Drain the water-oil mixture (📖 *p. 217*).
3. Unscrew the collection tray (2).
4. Unscrew the filter element (1).
5. Blow out the filter element (1) using the compressed air gun.
6. Wash out the filter tray using benzine.
7. Tighten the filter element (1).
8. Tighten the collection tray (2).
9. Tighten the drain screw (3).
10. Connect the machine to the compressed air supply.

6.4 Parts list

A parts list can be ordered from Dürkopp Adler. Or visit our website for further information at:

www.duerkopp-adler.com

7 Setup

WARNING

Risk of injury from cutting parts!

Cutting injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety gloves.

WARNING

Risk of injury from moving parts!

Crushing injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety shoes.

7.1 Checking the scope of delivery

The scope of delivery depends on your specific order. Check that the scope of delivery is correct after taking delivery.

7.2 Transport

Important

When transporting a machine with a stand that offers electromotive height adjustment, lower the stand to the lowest height setting before transporting the machine.
Restore the working height as soon as the machine is set up at its destination.

7.3 Removing the transport locks

Remove all transport locks before setting up the machine:

- at the machine head
- at the table
- at the stand

7.4 Adjusting the working height

WARNING

Risk of injury from moving parts!

The tabletop can sink under its own weight when the screws on the stand bars are loosened. Crushing possible.

Ensure that your hands are not jammed when loosening the screws.

CAUTION

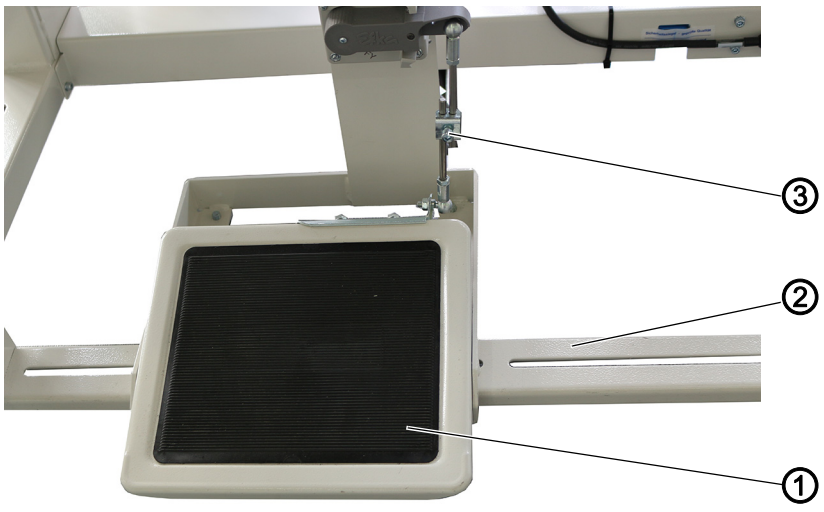
Risk of musculoskeletal damage from incorrect setting!

The operator can sustain musculoskeletal damage if failing to comply with the ergonomic requirements.

Adjust the working height to the body height of the person who will operate the machine.

7.5 Adjusting the pedal

Fig. 218: Adjusting the pedal (1)



(1) - Pedal
(2) - Cross strut
(3) - Screw

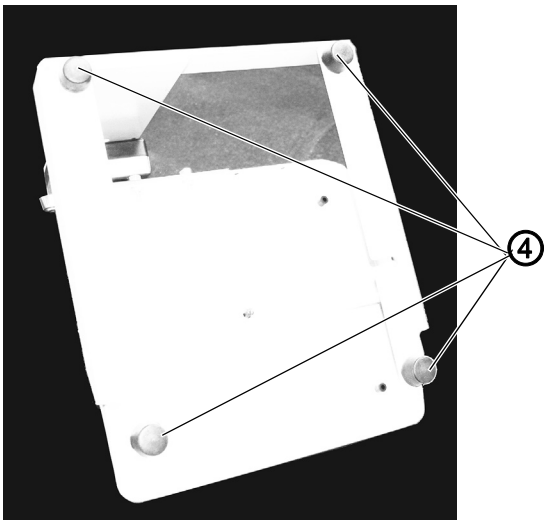
The pedal (1) must be tilted to a degree that allows the user to move the pedal forward and backward without a problem.

To adjust the pedal:

1. Loosen the screw (3).
2. Set pedal (1) accordingly.
3. Tighten the screw (3) again.

The pedal (1) can be assembled to the cross strut (2) or used as a stand-alone unit.

Fig. 219: Adjusting the pedal (2)



(4) - Rubber foot

If the pedal is supposed to be used as a stand-alone unit:

1. Assemble the rubber feet (4).
2. Ensure that all four rubber feet (4) are in contact with the floor.

7.6 Electrical connection

DANGER

Risk of death from live components!

Unprotected contact with electricity can result in serious injuries or death.

Only qualified specialists may perform work on electrical equipment.

Important

The voltage on the type plate of the sewing motor must correspond to the mains voltage.

7.7 Pneumatic connection

NOTICE

Property damage from oily compressed air!

Oil particles in the compressed air can cause malfunctions of the machine and soil the sewing material.

Ensure that no oil particles enter the compressed air supply.

NOTICE

Property damage from incorrect adjustment!

Incorrect system pressure can result in damage to the machine.

Ensure that the machine is only used when the system pressure is set correctly.

The pneumatic system of the machine and of the additional equipment must be supplied with dry and oil-free compressed air. The supply pressure must lie between 8 and 10 bar.

7.7.1 Assembling the compressed air maintenance unit

To assemble the compressed air maintenance unit:

1. Connect the connection hose to the compressed air supply using a hose coupling R 1/4”.

7.7.2 Adjusting the operating pressure

NOTICE

Property damage from incorrect operating pressure!

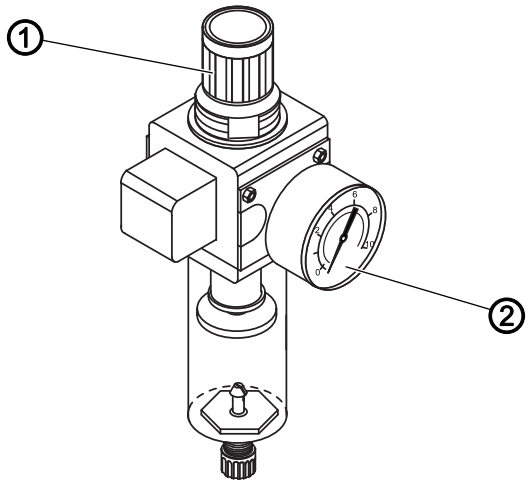
Incorrect operating pressure can result in damage to the machine.

Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical Data** (📖 *p. 261*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than ± 0.5 bar.

Fig. 220: Adjusting the operating pressure



(1) - Pressure regulator *(2) - Pressure gage*

To adjust the operating pressure:

1. Pull the pressure regulator (1) up.
2. Turn the pressure regulator until the pressure gage (2) indicates the proper setting:
   - Increase pressure = turn clockwise
   - Reduce pressure = turn counterclockwise
3. Push the pressure regulator (1) down.

7.8 Checking the lubrication

CAUTION

Skin damage from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid any skin contact with the oil. If oil has come into contact with your skin, wash the affected areas thoroughly.

NOTICE

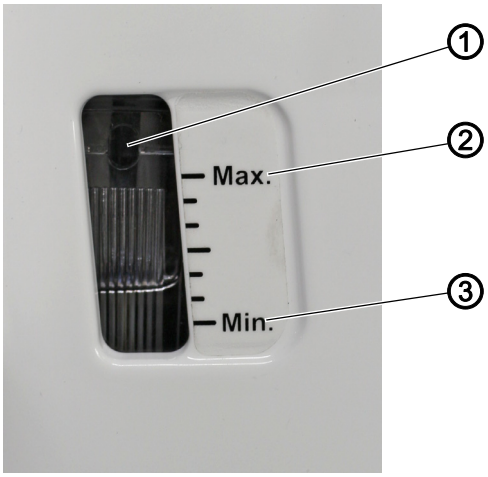
Machine damage possible from incorrect oil level!

Too little or too much oil can cause damage the machine.

During initial filling, only pour in oil up to 2 mm below the maximum level marking.

All wicks and felt bits of the machine head are soaked in oil at the factory. This oil is conveyed to the reservoir during use. This is why you should avoid filling too much oil during initial filling.

Fig. 221: Lubricating the machine head



(1) - Refill opening
(2) - Maximum level marking
(3) - Minimum level marking

Proper setting

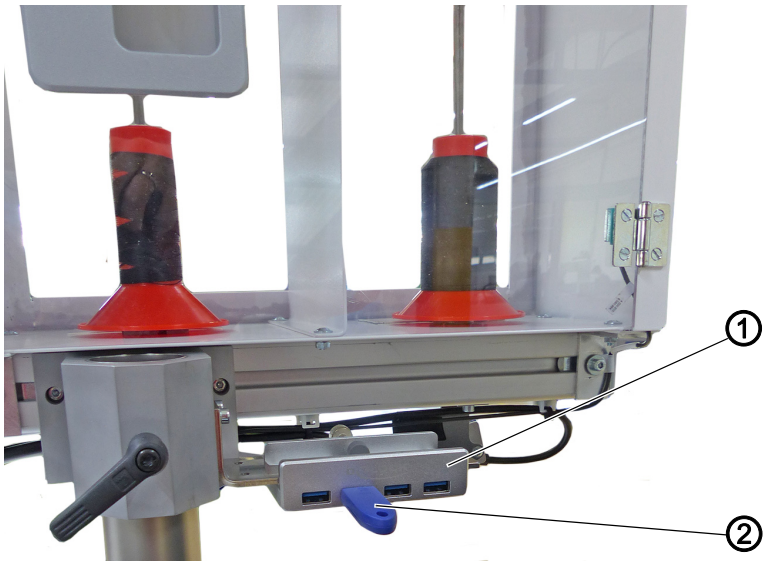
The oil level is between the minimum level marking (3) and the maximum level marking (2).

To check the lubrication:

1. Sew with the machine for approx. 1 minute.
2. Check at the inspection glass (3) whether the warning indicator is lit red or the oil level has dropped below the minimum marking (1).
3. If the oil level is below the minimum level marking (3): Top off oil through the refill opening (📖 *p. 214*).

7.9 Putting the machine into operation

Fig. 222: Putting the machine into operation



(1) - USB port *(2) - Dongle*

To put the machine into operation:

1. Plug the dongle (2) into a USB port (1).
2. Log in with security level **2** (📖 *p. 90*).
3. Confirm with **OK**.

7.10 Performing a test run

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Turn off the machine and do not thread the needle and hook thread unless the machine is switched off.

When setup is complete, perform a test run to check the functionality of the machine.

For this purpose, perform a thread tension check 📖 *p. 148*.

8 Decommissioning

WARNING

Risk of injury from a lack of care!

Serious injuries may occur.

ONLY clean the machine when it is switched off.
Allow ONLY trained personnel to disconnect the machine.

CAUTION

Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil.
If oil has come into contact with your skin, wash the affected areas thoroughly.

To decommission the machine:

1. Switch off the machine.
2. Unplug the power plug.
3. If applicable, disconnect the machine from the compressed air supply.
4. Remove residual oil from the oil pan using a cloth.
5. Cover the control panel to protect it from soiling.
6. Cover the control to protect it from soiling.
7. Cover the entire machine if possible to protect it from contamination and damage.

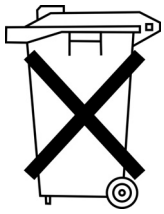
9 Disposal

CAUTION

Risk of environmental damage from improper disposal!

Improper disposal of the machine can result in serious environmental damage.

ALWAYS comply with the national regulations regarding disposal.



The machine must not be disposed of in the normal household waste.

The machine must be disposed of in a suitable manner in accordance with all applicable national regulations.

When disposing of the machine, be aware that it consists of a range of different materials (steel, plastic, electronic components, etc.). Follow the national regulations when disposing these materials.

10 Troubleshooting

10.1 Customer Service

Contact for repairs and issues with the machine:

Dürkopp Adler GmbH

Potsdamer Str. 190
33719 Bielefeld, Germany

Tel. +49 (0) 180 5 383 756
Fax +49 (0) 521 925 2594
Email: service@duerkopp-adler.com
Internet: www.duerkopp-adler.com

10.2 Messages of the software

Please contact customer service if an error occurs that is not described here. Do not attempt to correct the error yourself.

10.2.1 Information messages

The machine may display different information messages during sewing:

Information message	Description	Remedial action
Could not read printed label barcode	The end label barcode was not captured at the designated position	Scan the end label barcode using the end label scanner or the hand scanner
Please cut thread Please press the pedal forward	The sewing process is completed, and the thread trimmer is deactivated	Press the pedal forward to cut the thread.
Scan bobbin barcode hook	The bobbin barcode at the hook must be scanned to make the machine ready for operation	Scan bobbin barcode.
Scan pieces	To start the sewing process, the barcodes of the pieces to be sewn must be scanned first	Scan the barcodes of the pieces to be sewn.
Piece has been released	The barcodes of a piece to be sewn has been scanned and released	Sew the piece.

Information message	Description	Remedial action
??? ? Bobbin no. unknown	Bobbin no. not detected correctly or incorrect	Scan bobbin barcode.
Protocol file not existing	The database cannot be viewed as no sewing process has yet taken place and, thus, no protocol file exists yet	Press the **OK** button. Display is closed.
State of the UPS	In the event of a power failure, the machine is supplied by the battery built into the UPS. Once power has been restored, the UPS will give a corresponding indication.	Press the **OK** button. Display is closed.

10.2.2 Error messages

The machine may indicate the following error messages:

Variant A

Error message	Description	Remedial action
EC0 Ack	Acknowleding from an operator	
EC0 NoStart	Cancel a program without sewing start by operator	
EC10000	Error has been acknowledged by the user	
EC20000	Error in the thread tension compensation file	Check thread tension
EC21000	Error forced to thread cutting in documented seam section	
EC21400	Error impossible seam section from sewing motor	
EC21500	Unknown error code from sewing motor	
EC21600	Error wrong hook thread message received from sewing motor	
EC22000	Error forced to bar in documented seam section	
EC22500	Error bad tacking in the seam	
EC22600	Error wrong thread tension values for stitch counting sewing motor	
EC23000	Error thread breaking in documented seam section	
EC23010	Error thread breaking (left) in documented seam section	

Error message	Description	Remedial action
EC23100	Error skip stitch in documented seam section	
EC23110	Error skip stitch (left) in documented seam section	
EC23200	Error bobbin rotation monitor in documented seam section	
EC23210	Error bobbin rotation monitor (left) in documented seam section	
EC23500	Error thread tension too low in documented seam section	
EC23600	Error thread tension too high in documented seam section	
EC23900	Error thread breaking in documented seam section (sensor)	
EC23910	Error thread breaking (left) in documented seam section (sensor)	
EC25000	Error thread breaking in free seam section	
EC25010	Error thread breaking (left) in free seam section	
EC25100	Error skip stitch in free seam section	
EC25110	Error skip stitch (left) in free seam section	
EC25200	Error bobbin rotation monitor in free seam section	
EC25210	Error bobbin rotation monitor (left) in free seam section	
EC25500	Error thread tension too low in free seam	
EC25600	Thread tension too high in free seam section	
EC25700	Error edge measuring upper Limit	
EC25800	Error edge measuring lower Limit	
EC25900	Error thread breaking in free seam section (sensor)	
EC25910	Error thread breaking (left) in free seam section (sensor)	
EC26000	External barcode label (additional barcode) not read	

Error message	Description	Remedial action
EC27000	Hardware error, sewing motor not responding	
EC27100	Hardware error, stitch length stepping motor does not react correct	
EC27500	Hardware error, thread tension sensor not responding	
EC28000	Stitch count below target range	
EC28050	Stitch count below target range (in last seam section)	
EC29000	Stitch count above target range	
EC29050	Stitch count above target range (in last seam section)	
EC29100	Stitch count above target range in documented seam section	
EC29200	Stitch count above target range in free seam section	
EC30000	Bobbin thread is empty	
EC30001	Bobbin thread (left) is empty	
EC31000	Endlabel barcode was not read	
EC31010	Endlabel barcode was not read, wait for right security level	
EC31020	Endlabel barcode was reprinted after it was not read	
EC31030	Supervisor did not read the reprinted endlabel barcode with the hand scanner	
EC31040	Endlabel could sewed in because it was not read before	
EC31050	Reprinted endlabel is sewed in because it was not read before	
EC31100	Endlabel barcode was not read	
EC31110	Endlabel barcode was not read, wait for security level	
EC31120	Endlabel barcode was not read, reprint of the endlabel	
EC31125	Endlabel barcode was not read, wait for rescan the endlabel	
EC31130	Endlabel barcode was read and the process is forward	
EC31200	Endlabel barcode not unique	

Error message	Description	Remedial action
EC31500	Sewed wrong printed label	Check correct printed label
EC31600	Endlabel barcode not scanned or scanned incorrectly by seam scanner	Check printed label
EC32000	Bobbin with non-permitted thread inserted	Insert bobbin with correct thread.
EC32100	Bobbin with incorrect bobbin number inserted	Insert bobbin with correct thread.
EC32200	Bobbin (left) with incorrect bobbin number inserted	Insert bobbin with correct thread.
EC33000	Barcode printer not ready	
EC33010	Barcode printer not ready, wait for right security level	
EC33020	Barcode printer not ready, reprint of the endlabel	
EC33030	Barcode printer was ready and the process is forward	
EC34000	error: Writing log file	
EC35000	Door of thread cabinet not closed	
EC35100	Sensor needle thread cone not closed	
EC35200	Sensor bobbin thread cone not closed	
EC35300	Sensor slide plate not closed	
EC35400	Bobbin change in the seam not allowed	
EC35500	Needle area cover or hook slide not closed	
EC35510	Needle area cover or hook slide not closed, wait for closing	
EC36000	Check by camera showed bad part	
EC37000	DACflex control is switched off during sewing	
ECXXXACK	Supervisor has acknowledged th error XXX	
ECXXXCNT	Supervisor has released the further processing of the workpiece despite the error XXX	

Variant B.

Code	Type	Meaning	Remedial action
1000	Error	Sewing motor encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, • use correct connection
1001	Error	Sewing motor error Sewing motor plug (AMP) not connected	• Check connection and plug in • Test sewing motor phases (R = 2.8Ω, high impedance to PE) • Replace encoder • Replace sewing motor • Replace control
1002	Error	Sewing motor insulation error	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
1004	Error	Incorrect sewing motor direction of rotation	• Replace encoder • Check motor plug assignment and change it if necessary • Check wiring in machine distributor and change it, if necessary • Test motor phases and check for correct value
1005	Error	Motor blocked	• Check for stiff movement • Replace encoder • Replace sewing motor
1006	Error	Maximum speed exceeded	• Replace encoder • Perform reset • Check class (`t 51 04`)
1007	Error	Error in the reference run	• Replace encoder • Check for stiff movement
1008	Error	Sewing motor encoder error	• Replace encoder

Code	Type	Meaning	Remedial action
1010	Error	External synchronizer plug (Sub-D, 9-pin) not connected	• Connect cable of external synchronizer to control, make sure that interface (Sync) is correct • Only recommended for machines with transmission!
1011	Error	Encoder Z pulse missing	• Switch off the control, use handwheel to turn, and switch on the control again • If error is not corrected, check encoder
1012	Error	Synchronizer fault	• Replace synchronizer
1054	Error	Internal short circuit	• Replace control
1055	Error	Sewing motor overload	• Check for stiff movement • Replace encoder • Replace sewing motor
1060	Error	Sewing motor overload / overvoltage /overcurrent	• Check selection of class • Replace control • Replace motor • Replace encoder
1061	Error	Sewing motor overload / overvoltage /overcurrent	• Check selection of class • Replace control • Replace motor • Replace encoder
1120	Error	Sewing motor Init fault	• Perform software update • Check selection of class
1121	Error	Sewing motor watchdog	• Perform software update • Check selection of class
1203	Error	Position not reached (during thread cutting, reversal, etc.)	• Check the controller settings and change them if necessary (e.g. thread trimmer setting, belt tension, etc.) • Check position **thread lever at top dead center**
1302	Error	Failure with sewing motor current	• Check Service Stop • Check for stiff movement • Replace encoder • Replace motor
1330	Error	No response from sewing motor	• Perform software update • Replace control
2101	Error	Stepper motor X30 reference run timeout	• Check reference sensor

Code	Type	Meaning	Remedial action
2105	Error	Stepper motor card X30 blockage	• Check for stiff movement
2121	Error	Stepper motor card X30 encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, use the correct interface
2122	Error	Stepper motor card X30 rotor position not found	• Check stepper motor 1 for stiff movement
2130	Error	Stepper motor card X30 not responding	• Perform software update • Replace control
2131	Error	Stepper motor card X30 parameter init error	• Perform software update • Check selection of class
2152	Error	Stepper motor card X30 overcurrent	• Check for stiff movement
2171	Error	Stepper motor card X30 Watchdog (Stitch length)	• Perform software update • Check selection of class
2172	Error	Stepper motor card X30 motor overload / overvoltage /overcurrent (Stitch length)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2173	Error	Stepper motor card X30 Sewing motor encoder not connected (Stitch length)	• Replace control
2174	Error	Stepper motor card X30 Sewing motor encoder not init (Stitch length)	• Perform software update • Check selection of class
2175	Error	Stepper motor card X30 Init Position not found (Stitch length)	• Check for stiff movement • Replace encoder • Replace motor
2176	Error	Stepper motor card X30 not Enabled (Stitch length)	• Replace control
2177	Error	Stepper motor card X30 Overload (Stitch length)	• Check for stiff movement • Replace encoder • Replace motor
2178	Error	Stepper motor card X30 Encoder failure (Stitch length)	• Replace encoder

Code	Type	Meaning	Remedial action
2179	Error	Stepper motor card X30 Current sensor failure (Stitch length)	• Replace control
2180	Error	Stepper motor card X30 Incorrect stepper motor direction of rotation (Stitch length)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2181	Error	Stepper motor card X30 Reference run failure (Stitch length)	• Check for stiff movement • Replace encoder • Replace motor
2183	Error	Stepper motor card X30 overcurrent (Stitch length)	• Replace control
2184	Error	Stepper motor card X30 parameter init (Stitch length)	• Perform software update • Check selection of class
2185	Error	Stepper motor card X30 insulation error (Stitch length)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2187	Error	Stepper motor card X30 transport interval failure (Stitch length)	• Perform software update • Check selection of class
2188	Error	Stepper motor card X30 Reference run failure (Stitch length)	• Check for stiff movement • Replace encoder • Replace motor
2201	Error	Stepper motor X40 reference run timeout	• Check reference sensor
2205	Error	Stepper motor card X40 stepper motor blockage	• Check for stiff movement
2221	Error	Stepper motor card X40 encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, use the correct interface
2222	Error	Stepper motor card X40 rotor position not found	• Check stepper motor 1 for stiff movement
2230	Error	Stepper motor card X40 not responding	• Perform software update • Replace control
2231	Error	Stepper motor card X40 parameter init error	• Perform software update • Check selection of class
2252	Error	Stepper motor card X40 overcurrent	• Check for stiff movement

Code	Type	Meaning	Remedial action
2271	Error	Stepper motor card X40 Watchdog (sewing foot lift)	• Perform software update • Check selection of class
2272	Error	Stepper motor card X40 motor overload / overvoltage /overcurrent (Sewing foot lift)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2273	Error	Stepper motor card X40 Sewing motor encoder not connected (Sewing foot lift)	• Replace control
2274	Error	Stepper motor card X40 Sewing motor encoder not init (Sewing foot lift)	• Perform software update • Check selection of class
2275	Error	Stepper motor card X40 Init Position not found (Sewing foot lift)	• Check for stiff movement • Replace encoder • Replace motor
2276	Error	Stepper motor card X40 not Enabled (Sewing foot lift)	• Replace control
2277	Error	Stepper motor card X40 overload (Sewing foot lift)	• Check for stiff movement • Replace encoder • Replace motor
2278	Error	Stepper motor card X40 Encoder failure (Sewing foot lift)	• Replace encoder
2279	Error	Stepper motor card X40 Current sensor failure (Sewing foot lift)	• Replace control
2280	Error	Stepper motor card X40 Incorrect stepper motor direction of rotation (Sewing foot lift)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2281	Error	Stepper motor card X40 Reference run failure (Sewing foot lift)	• Check for stiff movement • Replace encoder • Replace motor
2283	Error	Stepper motor card X40 overcurrent (Sewing foot lift)	• Replace control
2284	Error	Stepper motor card X40 parameter init (Sewing foot lift)	• Perform software update • Check selection of class

Code	Type	Meaning	Remedial action
2285	Error	Stepper motor card X40 insulation error (Sewing foot lift)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2287	Error	Stepper motor card X40 transport interval failure (Sewing foot lift)	• Perform software update • Check selection of class
2288	Error	Stepper motor card X40 Reference run failure (Sewing foot lift)	• Check for stiff movement • Replace encoder • Replace motor
2301	Error	Stepper motor card X50 Reference run failure (Stitch length)	• Check reference sensor
2305	Error	Stepper motor card X50 stepper motor blockage	• Check for stiff movement
2321	Error	Stepper motor card X50 encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, use the correct interface
2322	Error	Stepper motor card X50 rotor position not found	• Check stepper motor 1 for stiff movement
2330	Error	Stepper motor card X50 not responding	• Perform software update • Replace control
2331	Error	Stepper motor card X50 parameter init error	• Perform software update • Check selection of class
2352	Error	Stepper motor card X50 overcurrent	• Check for stiff movement
2371	Error	Stepper motor card X50 Watchdog (sewing foot lift)	• Perform software update • Check selection of class
2372	Error	Stepper motor card X50 motor overload / overvoltage /overcurrent (Sewing foot stroke)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2373	Error	Stepper motor card X50 Sewing motor encoder not connected (Sewing foot stroke)	• Replace control
2374	Error	Stepper motor card X50 Sewing motor encoder not init (Sewing foot stroke)	• Perform software update • Check selection of class

Code	Type	Meaning	Remedial action
2375	Error	Stepper motor card X50 Init Position not found (Sewing foot stroke)	• Check for stiff movement • Replace encoder • Replace motor
2376	Error	Stepper motor card X50 not Enabled (Sewing foot stroke)	• Replace control
2377	Error	Stepper motor card X50 Overload (Sewing foot stroke)	• Check for stiff movement • Replace encoder • Replace motor
2378	Error	Stepper motor card X50 Encoder failure (Sewing foot stroke)	• Replace encoder
2379	Error	Stepper motor card X50 Current sensor failure (Sewing foot stroke)	• Replace control
2380	Error	Stepper motor card X50 Incorrect stepper motor direction of rotation (Sewing foot stroke)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2381	Error	Stepper motor card X50 Reference run failure (Sewing foot stroke)	• Check for stiff movement • Replace encoder • Replace motor
2383	Error	Stepper motor card X50 overcurrent (Sewing foot stroke)	• Replace control
2384	Error	Stepper motor card X50 parameter init (Sewing foot stroke)	• Perform software update • Check selection of class
2385	Error	Stepper motor card X50 insulation error (Sewing foot stroke)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2387	Error	Stepper motor card X50 transport interval failure (Sewing foot stroke)	• Perform software update • Check selection of class
2388	Error	Stepper motor card X50 Reference run failure (Sewing foot stroke)	• Check for stiff movement • Replace encoder • Replace motor
2401	Error	Stepper motor card X60 reference run timeout (Edge guide)	• Check reference sensor

Code	Type	Meaning	Remedial action
2405	Error	Stepper motor card X60 stepper motor blockage (motorized edge guide)	• Check for stiff movement
2421	Error	Stepper motor card X60 encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, use the correct interface
2422	Error	Stepper motor card X60 rotor position not found	• Check stepper motor 1 for stiff movement
2430	Error	Stepper motor card X60 not responding	• Perform software update • Replace control
2431	Error	Stepper motor card X60 parameter init error	• Perform software update • Check selection of class
2471	Error	Stepper motor card X60 Watchdog (motorized edge guide)	• Perform software update • Check selection of class
2472	Error	Stepper motor card X60 motor overload / overvoltage / overcurrent (motorized edge guide)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2473	Error	Stepper motor card X60 Sewing motor encoder not connected (motorized edge guide)	• Replace control
2474	Error	Stepper motor card X60 Sewing motor encoder not init (motorized edge guide)	• Perform software update • Check selection of class
2475	Error	Stepper motor card X60 Init Position not found (motorized edge guide)	• Check for stiff movement • Replace encoder • Replace motor
2476	Error	Stepper motor card X60 not Enabled (motorized edge guide)	• Replace control
2477	Error	Stepper motor card X60 Overload (motorized edge guide)	• Check for stiff movement • Replace encoder • Replace motor
2478	Error	Stepper motor card X60 Encoder failure (motorized edge guide)	• Replace encoder

Code	Type	Meaning	Remedial action
2479	Error	Stepper motor card X60 Current sensor failure (motorized edge guide)	• Replace control
2480	Error	Stepper motor card X60 Incorrect stepper motor direction of rotation (motorized edge guide)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2481	Error	Stepper motor card X60 Reference run failure (motorized edge guide)	• Check for stiff movement • Replace encoder • Replace motor
2483	Error	Stepper motor card X60 overcurrent (motorized edge guide)	• Replace control
2484	Error	Stepper motor card X60 parameter init (motorized edge guide)	• Perform software update • Check selection of class
2485	Error	Stepper motor card X60 insulation error (motorized edge guide)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2487	Error	Stepper motor card X60 transport interval failure (Edge guide)	• Perform software update • Check selection of class
2488	Error	Stepper motor card X60 Reference run failure (motorized edge guide)	• Check for stiff movement • Replace encoder • Replace motor
2501	Error	Stepper motor card X70 reference run timeout (upper Puller)	• Check reference sensor
2505	Error	Stepper motor card X70 stepper motor blockage (upper Puller)	• Check for stiff movement
2521	Error	Stepper motor card X70 encoder plug (Sub-D, 9-pin) not connected	• Connect encoder cable to the control, use the correct interface
2522	Error	Stepper motor card X70 rotor position not found	• Check stepper motor 1 for stiff movement

Code	Type	Meaning	Remedial action
2530	Error	Stepper motor card X70 not responding	• Perform software update • Replace control
2531	Error	Stepper motor card X70 parameter init error	• Perform software update • Check selection of class
2571	Error	Stepper motor card X70 Watchdog (upper Puller)	• Perform software update • Check selection of class
2572	Error	Stepper motor card X70 motor overload / overvoltage /overcurrent (upper Puller)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2573	Error	Stepper motor card X70 Sewing motor encoder not connected (upper Puller)	• Replace control
2574	Error	Stepper motor card X70 Sewing motor encoder not init (upper Puller)	• Perform software update • Check selection of class
2575	Error	Stepper motor card X70 Init Position not found (upper Puller)	• Check for stiff movement • Replace encoder • Replace motor
2576	Error	Stepper motor card X70 not Enabled (upper Puller)	• Replace control
2577	Error	Stepper motor card X70 Overload (upper Puller)	• Check for stiff movement • Replace encoder • Replace motor
2578	Error	Stepper motor card X70 Encoder failure (upper Puller)	• Replace encoder
2579	Error	Stepper motor card X70 Current sensor failure (upper Puller)	• Replace control
2580	Error	Stepper motor card X70 Incorrect stepper motor direction of rotation (upper Puller)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2581	Error	Stepper motor card X70 Reference run failure (upper Puller)	• Check for stiff movement • Replace encoder • Replace motor

Code	Type	Meaning	Remedial action
2583	Error	Stepper motor card X70 overcurrent (upper Puller)	• Replace control
2584	Error	Stepper motor card X70 parameter init (upper Puller)	• Perform software update • Check selection of class
2585	Error	Stepper motor card X70 insulation error (upper Puller)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2587	Error	Stepper motor card X70 transport interval failure (upper Puller)	• Perform software update • Check selection of class
2588	Error	Stepper motor card X70 Reference run failure (upper Puller)	• Check for stiff movement • Replace encoder • Replace motor
2601	Error	Stepper motor X80 reference run timeout (bottom puller)	• Check reference sensor
2605	Error	Stepper motor card X80 stepper motor blockage (bottom puller)	• Check for stiff movement
2621	Error	Stepper motor card X82 encoder plug (Sub-D, 9-pin) not connected (bottom puller)	• Connect encoder cable to the control, use the correct interface
2622	Error	Stepper motor card X80 rotor position not found (bottom puller)	• Check stepper motor 6 for stiff movement
2630	Error	Stepper motor card X80 not responding (bottom puller)	• Perform software update • Replace control
2631	Error	Stepper motor card X80 init failure (bottom puller)	• Perform software update • Check selection of class
2671	Error	Stepper motor card X80 Watchdog (bottom puller)	• Perform software update • Check selection of class
2672	Error	Stepper motor card X80 motor overload / overvoltage / overcurrent (bottom puller)	• Check selection of class • Replace control • Replace encoder • Replace stepper motor
2673	Error	Stepper motor card X80 Sewing motor encoder not connected (bottom puller)	• Replace control
2674	Error	Stepper motor card X80 Sewing motor encoder not init (bottom puller)	• Perform software update • Check selection of class

Code	Type	Meaning	Remedial action
2675	Error	Stepper motor card X80 Init Position not found (bottom puller)	• Check for stiff movement • Replace encoder • Replace motor
2676	Error	Stepper motor card X80 not Enabled (bottom puller)	• Replace control
2677	Error	Stepper motor card X80 overload (bottom puller)	• Check for stiff movement • Replace encoder • Replace motor
2678	Error	Stepper motor card X80 Encoder failure (bottom puller)	• Replace encoder
2679	Error	Stepper motor card X80 Current sensor failure (bottom puller)	• Replace control
2680	Error	Stepper motor card X80 Incorrect stepper motor direction of rotation (bottom puller)	• Replace encoder • Check if plugs have been mixed up • Check the wiring in the machine distributor and change it if necessary
2681	Error	Stepper motor card X80 Reference run failure (bottom puller)	• Check for stiff movement • Replace encoder • Replace motor
2683	Error	Stepper motor card X80 overcurrent (bottom puller)	• Replace control
2684	Error	Stepper motor card X80 parameter init (bottom puller)	• Perform software update • Check selection of class
2685	Error	Stepper motor card X80 insulation error (bottom puller)	• Check motor phase and PE for low-impedance connection • Replace encoder • Replace sewing motor
2687	Error	Stepper motor card X80 transport interval failure (bottom puller)	• Perform software update • Check selection of class
2688	Error	Stepper motor card X80 Reference run failure (bottom puller)	• Check for stiff movement • Replace encoder • Replace motor
2901	Error	General Reference Timeout of the stepper motors	• Check the reference sensors
3010	Error	U100 V start-up error	• Disconnect the stepper motor plugs; if error persists, replace control

Code	Type	Meaning	Remedial action
3011	Error	U100 V short circuit	• Disconnect motor plug; replace control if error is not corrected: Replace control
3012	Error	U100 V (I^2T) overload	• one or several stepper motors defective
3020	Error	U24 V start-up error	• Disconnect magnet plug; replace control if error is not corrected: Replace control
3021	Error	U24 V short circuit	• Disconnect magnet plug; replace control if error is not corrected: Replace control
3022	Error	U24 V (I^2T) overload	• One or several magnets defective
3023	Error	U 48 V start error	• Disconnect magnetic switch; replace control if error is not corrected: Replace control
3024	Error	U 48 V short circuit	• Disconnect magnetic switch; replace control if error is not corrected: Replace control
3025	Error	U 48V (I^2T) overload	• One or more magnets defective
3030	Error	Motor phase failure	• Replace control
3104	Warning	Pedal is not in position 0	• When switching the control on, take your foot off the pedal
3109	Warning	Operation lock	• Check tilt sensor on machine
3110	Information	Right thread tension magnet is not connected	• Check the connection of right thread tension magnet
3111	Information	Left thread tension magnet is not connected	• Check the connection of left thread tension magnet
3150	Information	Maintenance necessary	• For information on maintenance of the machine, see the service instructions for the machine

Code	Type	Meaning	Remedial action
3223	Information	Skip stitch detection	• -
3224	Information	Bobbin rotation monitor	• The bobbin is not rotating • Check the bobbin, advance the initial thread
3225	Information	SSD sensor is soiled	• Use compressed air or a soft cotton cloth to clean the sensor
3354	Information	Failure in thread trimmer process	• Perform software update
3383	Information	Failure in with the motor referencing process	• Check motor • Perform software update
4201	Warning	Failure SD-Card	• Insert SD card • Replace control
4430	Warning	OP3000: Connection lost	• Check connection to OP3000 • Replace OP3000 • Replace control
4460	Warning	OP7000 connection lost	• Check connection to OP7000 • Replace OP7000 • Replace control
4905	Information	New machine is connected	• New machine is connected • Set the class in the Service menu
4906	Information		• Check machine ID port • Reset or machine class change necessary
4907	Information		• Reset or machine class change necessary
4908	Information		• Reset necessary
4911	Information		• Reset necessary
4918	Warning	Invalid update file	• Contact DA Service
4919	Warning	Reset failed	• Contact DA Service
4920	Warning	Error in update log	• Contact DA Service
4921	Warning	The update was interrupted	• Contact DA Service
4922	Error	Unable to find user database	• Contact DA Service
4923	Error	Synchronization failed	• Contact DA Service
4924	Warning	Control not responding	• Perform software update

Code	Type	Meaning	Remedial action
4930	Information	Control replaced	• Data transfer from control panel to control
4931	Information	Checksum error of the control	• Data transfer from control panel to control
6070	Error	Internal CAN	• Perform software update • Replace control
6353	Error	EEprom Timeout	• Switch off the control, wait until the LEDs are off, check connection for machine ID, and switch on control again
6360	Information	No valid data on external EEprom (internal data structures are not compatible with the external data storage device)	• Software update
6361	Information	No external EEprom connected	• Connect machine ID
6362	Information	No valid data on internal EEprom (internal data structures are not compatible with the external data storage device)	• Check machine ID connection • Switch off the control, wait until the LEDs have gone out, and then switch on the control again • Software update
6363	Information	No valid data on internal and external EEprom (software version is not compatible with the internal data storage device, emergency operating features only)	• Check machine ID connection • Switch off the control, wait until the LEDs have gone out, and then switch on the control again • Software update
6364	Information	No valid data on internal EEprom and no external EEprom connected (the internal data structures are not compatible with the external data storage device)	• Check machine ID connection • Switch off the control, wait until the LEDs have gone out, and then switch on the control again • Software update
6365	Information	Internal EEprom defective	• Replace control

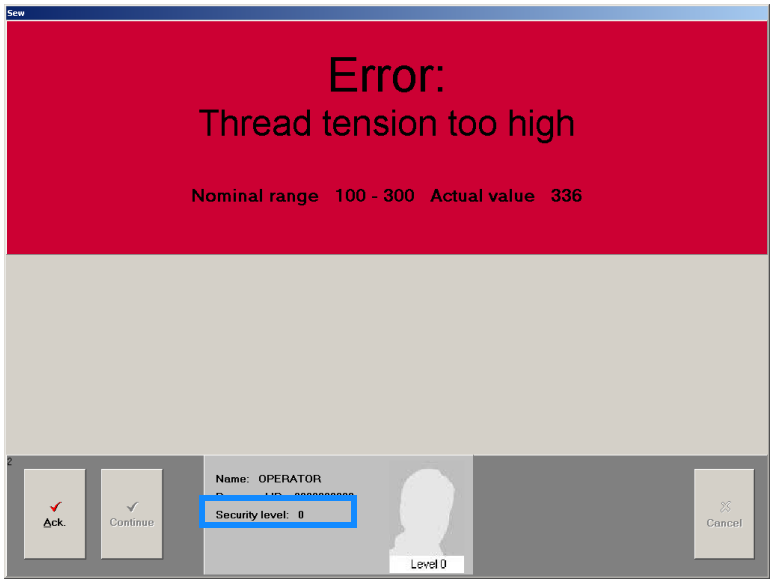
Code	Type	Meaning	Remedial action
6366	Information	Internal EEprom defective and external data not valid (emergency operating features only)	• Replace control
6367	Information	Internal EEprom defective and external data not valid (emergency operating features only)	• Replace control
7270	Information	External CAN	• Check connection cables • Perform software update • Replace CAN slaves
9300	Error	CAN cable not connected	• Check CAN cable
9310	Error	Tape feeder not connected	• Check connection cables • Perform software update • Replace the control of the tape feeder
9320	Error	Tape feeder in lowered position	•
9330	Information	Material thickness sensor not connected	• Check connection cables • Perform software update • Replace material thickness sensor
9340	Error	Remaining thread monitor not connected	• Check connection cables • Perform software update • Replace remaining thread monitor
9350	Error	Upper machine head pcb is not connected	• Check cable • Perform software update • Replace PCB
9351	Error	Lower machine head pcb is not connected	• Check cable • Perform software update • Replace PCB
9352	Error	Left thread tension pcb is not connected	• Check cable • Perform software update • Replace PCB
9360	Error	Edge guide pcb is not connected	• Check cable • Perform software update • Replace PCB
9361	Error	Edge guide x-axis pcb is not connected	• Check cable • Perform software update • Replace PCB
9362	Error	Edge guide y-axis pcb is not connected	• Check cable • Perform software update • Replace PCB

Code	Type	Meaning	Remedial action
9910	Warning	Sewing stop	• Check tilt sensor on machine • Check 24V • Replace control
9911	Warning	Power down	• The control is switched off
9912	Warning	Restart necessary	• Switch off the control
9913	Warning	Empty bobbin	• Please insert a full bobbin
9914	Warning	Reset	• Remove USB key!
9915	Warning	Please Wait!	• Please wait and do not remove USB key
9916	Warning	Erase internal Memory	• Delete the SD card. Continue with OK; cancel with ESC
9917	Warning	Erase USB key	• Delete the USB key. Continue with OK; cancel with ESC
9918	Warning	No USB key present	• Please insert USB key
9919	Warning	Sewing stop	• Machine in stop mode for threading the thread
9920	Warning	Referencing	• Please wait for motor referencing
9921	Warning	Show Message from QONDAC	• Show Message
9922	Warning	Service Stop	• Check the Service Stop button • Check 24V • Replace control
9923	Warning	Update required	• Press OK for Restart or ESC for cancel
9924	Warning	Security key generated	• Creation of a security key on a USB key
9925	Warning	Security Key changed!	• Overwrite Security Key?
9926	Warning	Please Confirm Reset	• Really reset?
9927	Warning	Reset	• Reset successfully
9928	Warning	Referencing?	• Press pedal backwards (pedal position-2)
9929	Warning	Not enough thread available	• Please insert a full bobbin
9930	Warning	Empty bobbin	• Please insert a full bobbin

Code	Type	Meaning	Remedial action
9931	Information	Bobbin Wind mode	• Press pedal backwards exit bobbin wind mode
9932	Information	No program available	• Automatic mode is not available without a program. Please use programming mode to define a program.
9933	Information	Continue with actual value?	• Continue winder with current value (YES) • Start winder with new value (NO)
9934	Warning	Tilt sensor active	• Erect the machine head
9935	Warning	Right hook cover open	• Close the hook cover
9936	Warning	Left hook cover open	• Close the hook cover
9937	Warning	Needle area cover open	• Close needle area cover
9938	Warning	ENG ON 4	-

10.2.3 Editing error messages

Fig. 223: Editing error messages (1)



The sewing process stops as soon as an error message appears (📖 *p. 233*).

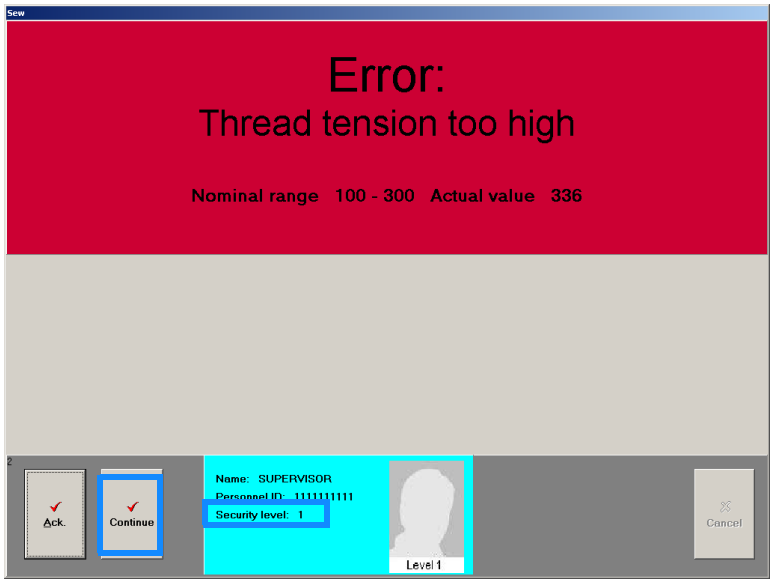
Users with security level **0** will only be able to cancel the sewing process. Users with security level **1** or **2** will be able to release or cancel the sewing process.

To edit an error message:

1. Log in with security level **1** or **2**.

↳ The display switches to:

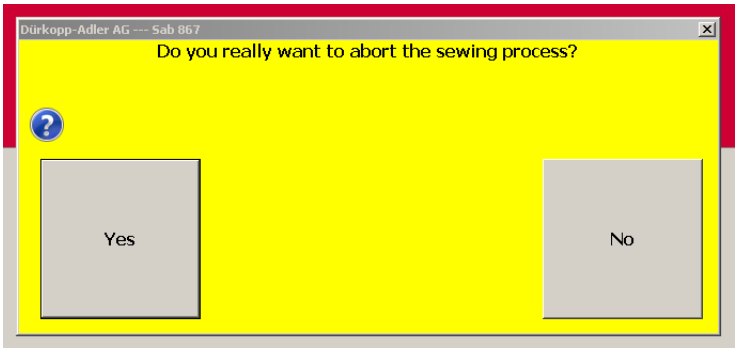
Fig. 224: Editing error messages (2)



2. Press the **Continue** button.

↳ The display switches to:

Fig. 225: Editing error messages (3)



3. To cancel the sewing process, press the **Yes** button.
4. To continue the sewing process, press the **No** button.

Information

The machine will store every error and information as to which user released or canceled the sewing process.

If an error has occurred, the programmed batch mode, if applicable, will be canceled accordingly.
If you wish to start a new sewing process, you need to call the function *Sew* on the main screen after the sewing process was interrupted.

10.3 Errors in sewing process

Error	Possible causes	Remedial action
Unthreading at seam beginning	Needle thread tension is too firm	Check needle thread tension 🕮 *p. 37*
Thread breaking	Needle thread and hook thread have not been threaded correctly	Check threading path 🕮 *p. 24*, 🕮 *p. 26*, 🕮 *p. 34*
	Needle is bent or sharp-edged	Replace the needle 🕮 *p. 22*
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar 🕮 *p. 22*
	The thread used is unsuitable	Use recommended thread 🕮 *p. 261*
	Thread tensions are too tight for the thread used	Check thread tensions 🕮 *p. 36*
	Thread-guiding parts, such as thread tube, thread guide or thread take-up disk, are sharp-edged	Check threading path 🕮 *p. 24*, 🕮 *p. 26*, 🕮 *p. 34*
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists
Skip stitches	Needle thread and hook thread have not been threaded correctly	Check threading path 🕮 *p. 24*, 🕮 *p. 26*, 🕮 *p. 34*
	Needle is blunt or bent	Replace the needle 🕮 *p. 22*
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar 🕮 *p. 22*
	The needle thickness used is unsuitable	Use recommended needle thickness 🕮 *p. 261*
	The reel stand is assembled incorrectly	Check the assembly of the reel stand
	Thread tensions are too tight	Check thread tensions 🕮 *p. 36*
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists

Error	Possible causes	Remedial action
Loose stitches	Thread tensions are not adjusted to the sewing material, the sewing material thickness or the thread used	Check thread tensions 🕮 *p. 36*
	Needle thread and hook thread have not been threaded correctly	Check threading path 🕮 *p. 24*, 🕮 *p. 26*, 🕮 *p. 34*
Needle breakage	Needle thickness is unsuitable for the sewing material or the thread	Use recommended needle thickness 🕮 *p. 261*

11 Technical data

11.1 Data and characteristic values

Technical data	Unit	550-D800
Type of stitches		Double lockstitch 301
Hook type		vertical, 32 mm
Number of needles		1
Needle system		134-35
Needle strength	[Nm]	90 - 180
Thread strength	[Nm]	120/3 - 10/3 (short thread cutter, KFA max. 15/3)
Stitch length	[mm]	12/12
Speed maximum	[min^{-1}]	3500
Speed on delivery	[min^{-1}]	3500
Sewing foot stroke	[mm]	9
Lifting height	[mm]	20
Mains voltage	[V]	230
Mains frequency	[Hz]	50/60
Operating pressure	[bar]	6
Length	[mm]	740
Width	[mm]	220
Height	[mm]	460

11.2 Requirements for fault-free operation

Compressed air quality must conform to ISO 8573-1: 2010 [7:4:4].

12 Appendix

Fig. 226: Wiring diagram (1)

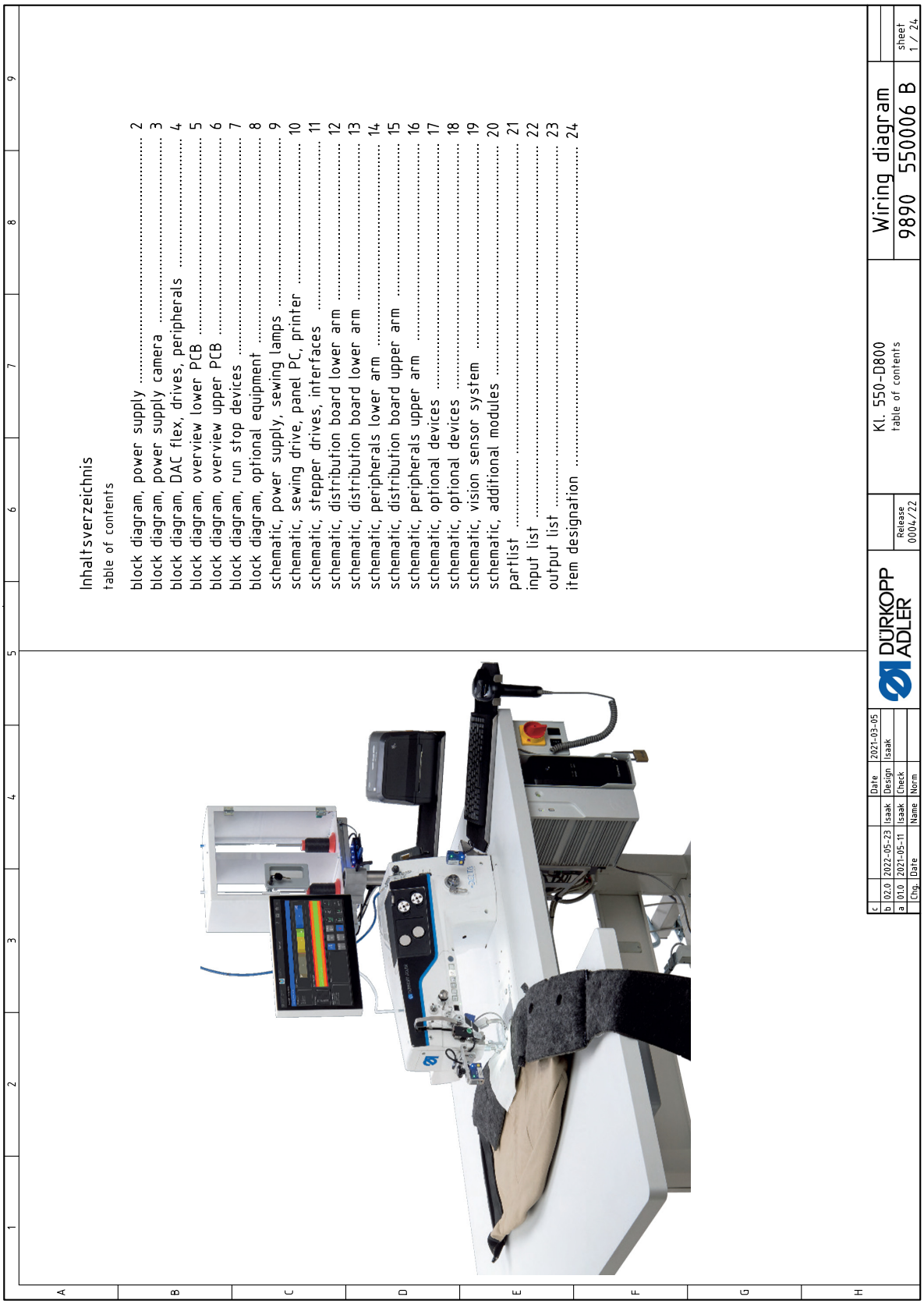


Fig. 227: Wiring diagram (2)

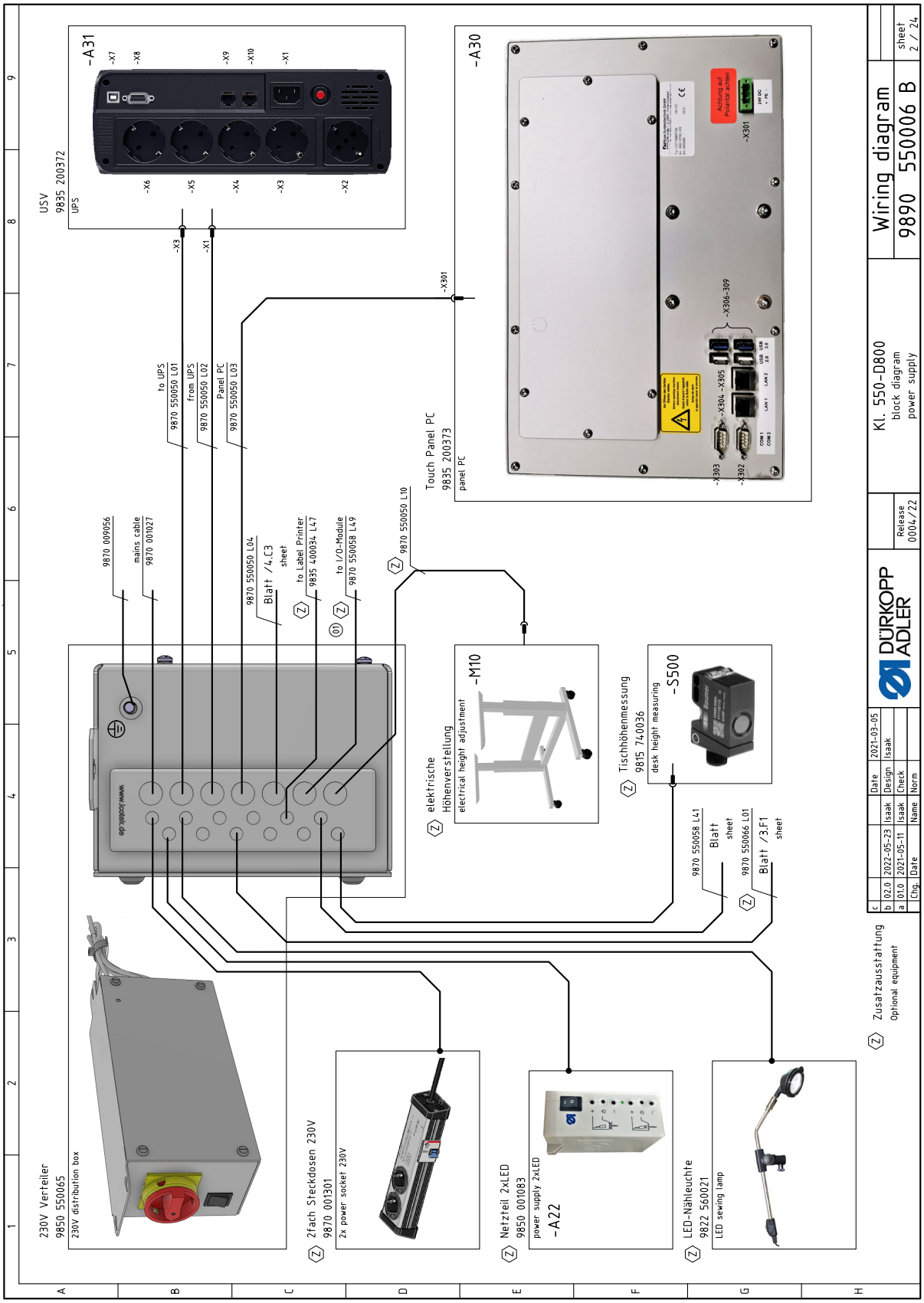


Fig. 228: Wiring diagram (3)

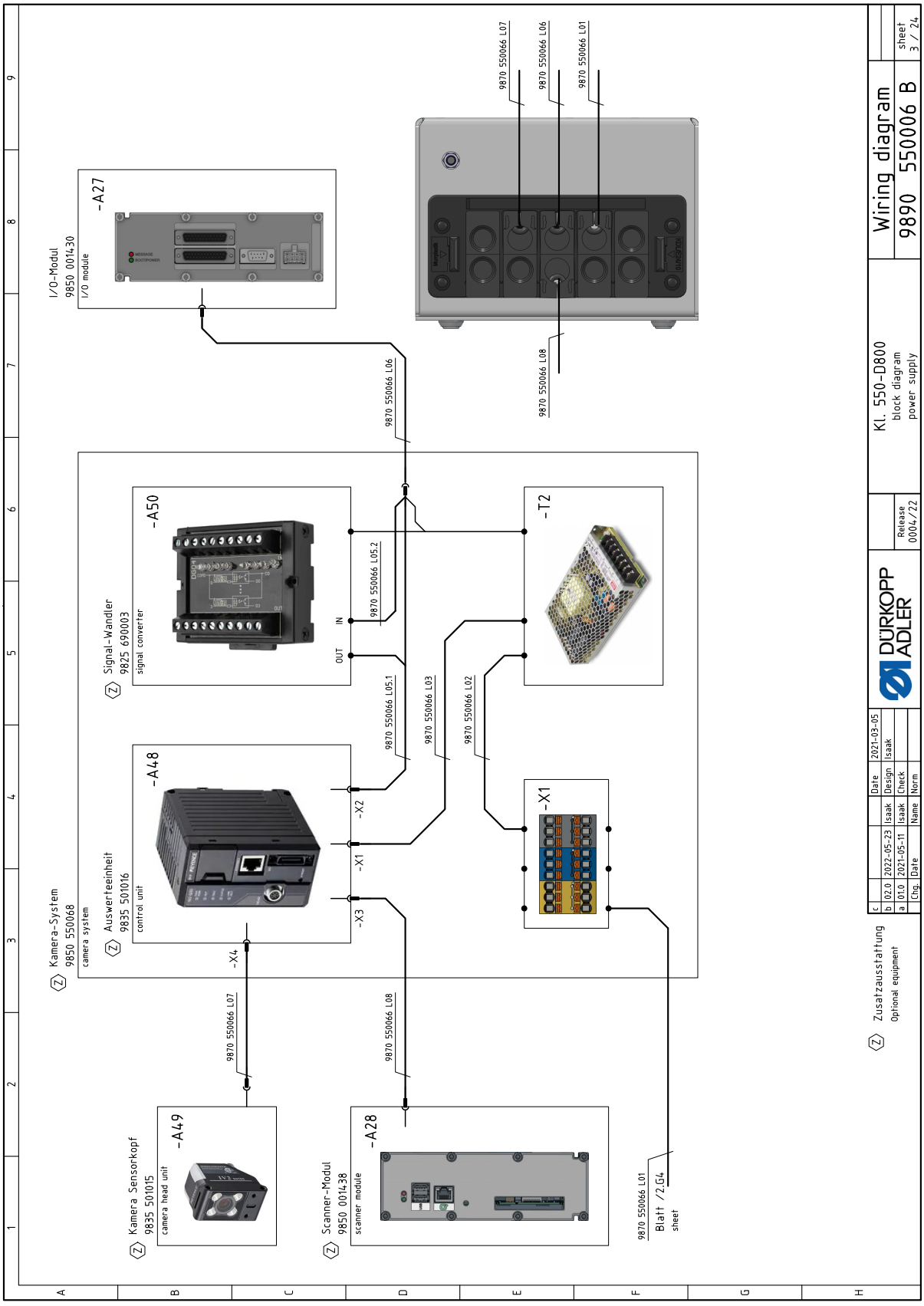


Fig. 229: Wiring diagram (4)

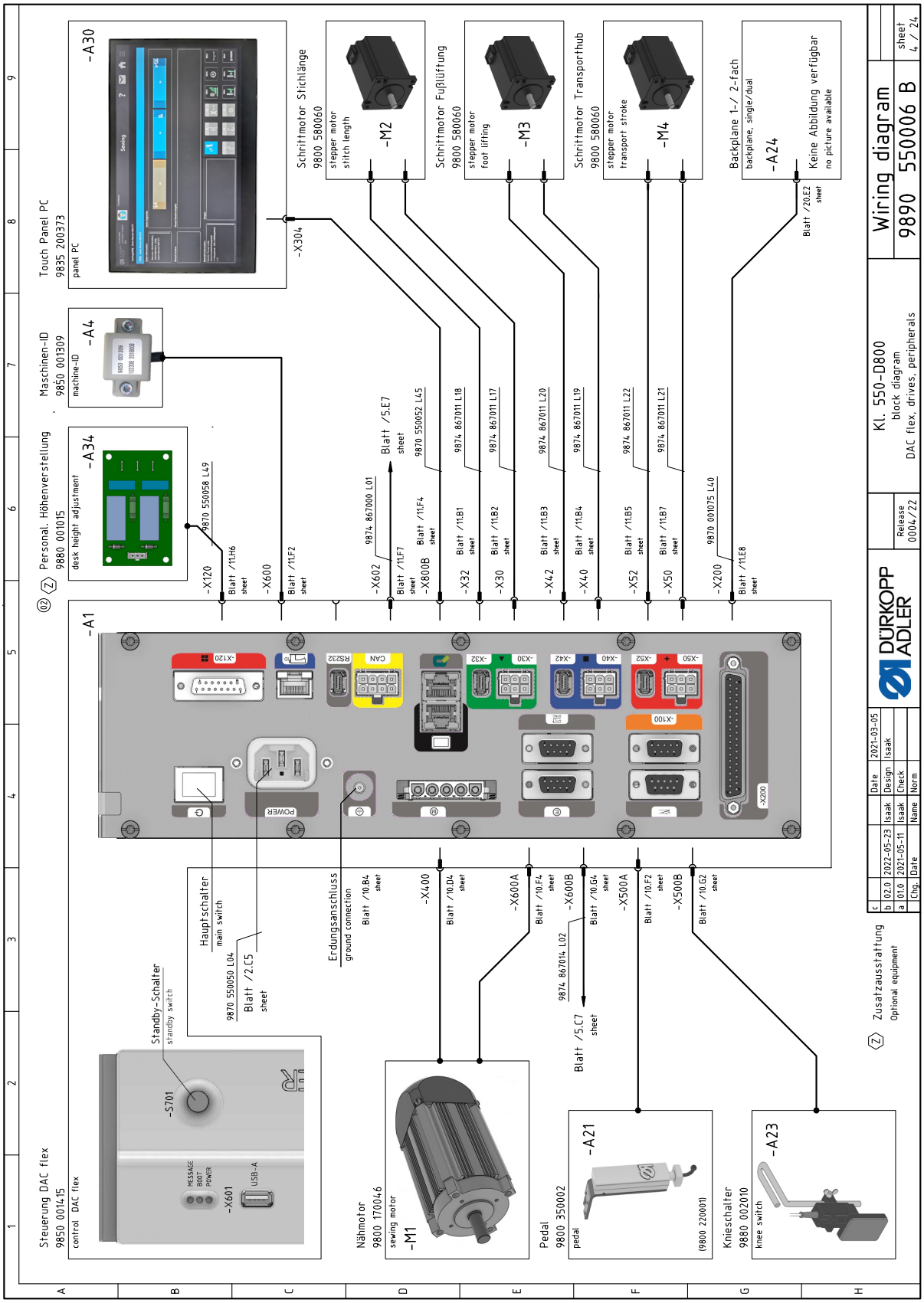


Fig. 230: Wiring diagram (5)

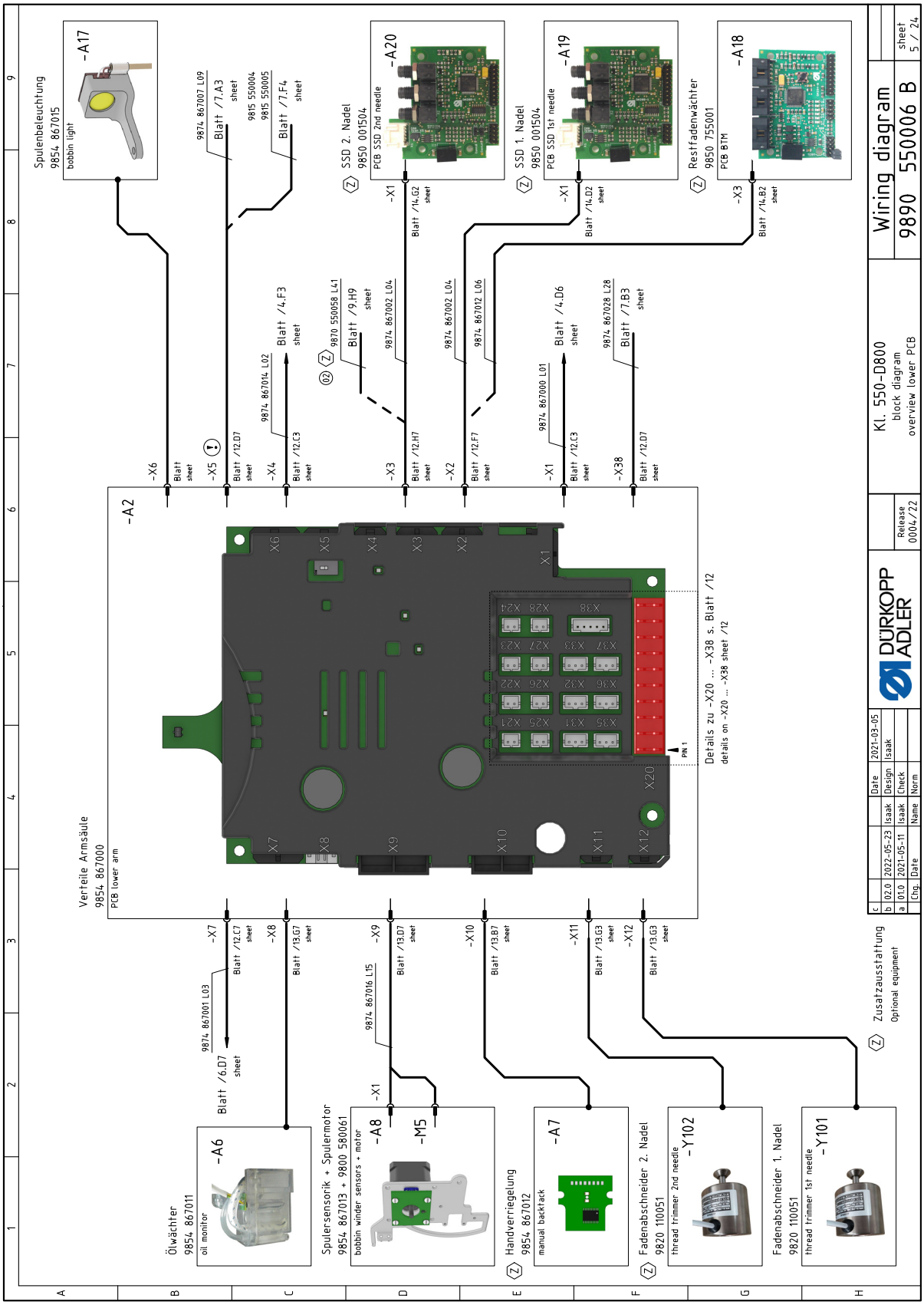


Fig. 231: Wiring diagram (6)

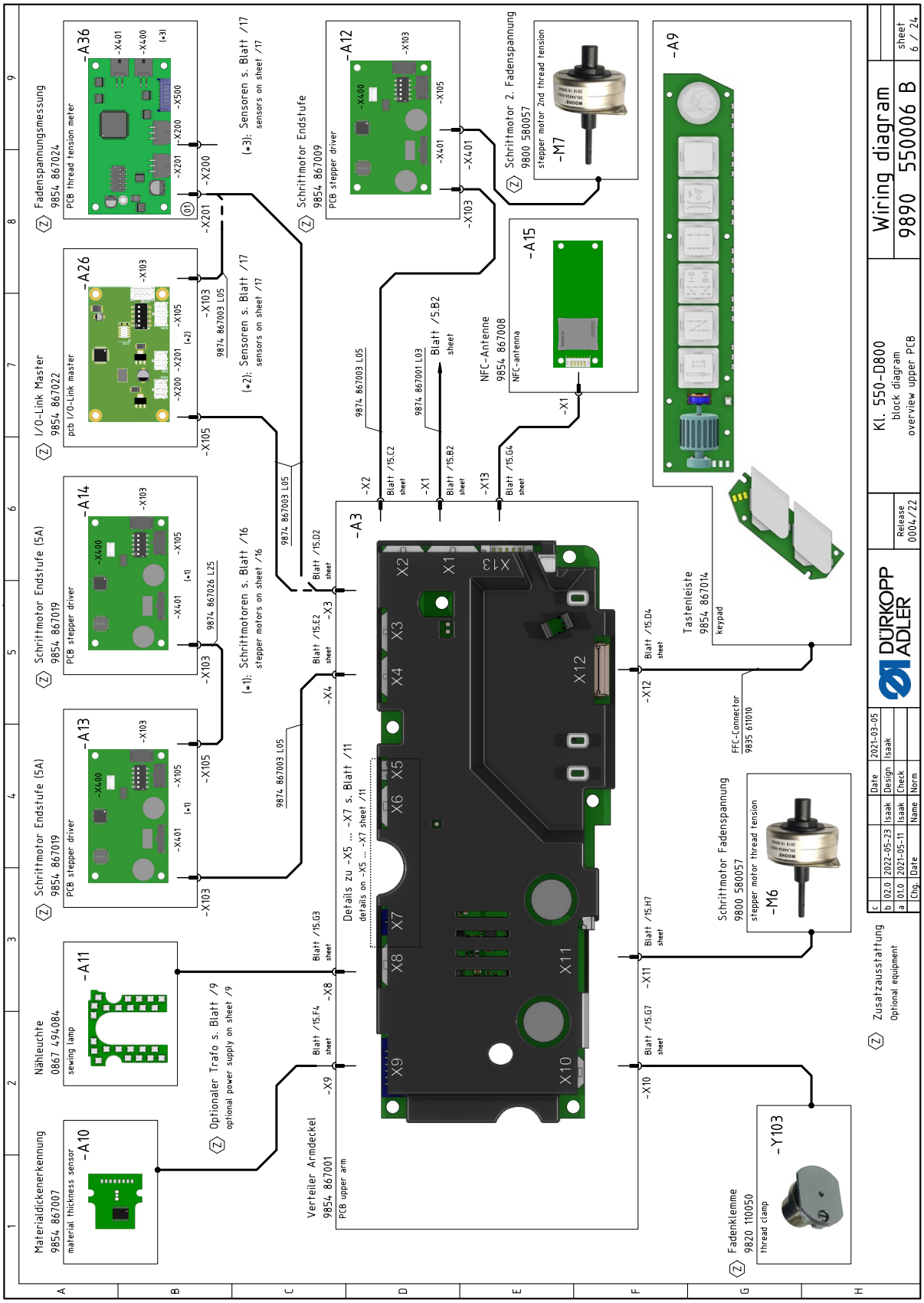


Fig. 232: Wiring diagram (7)

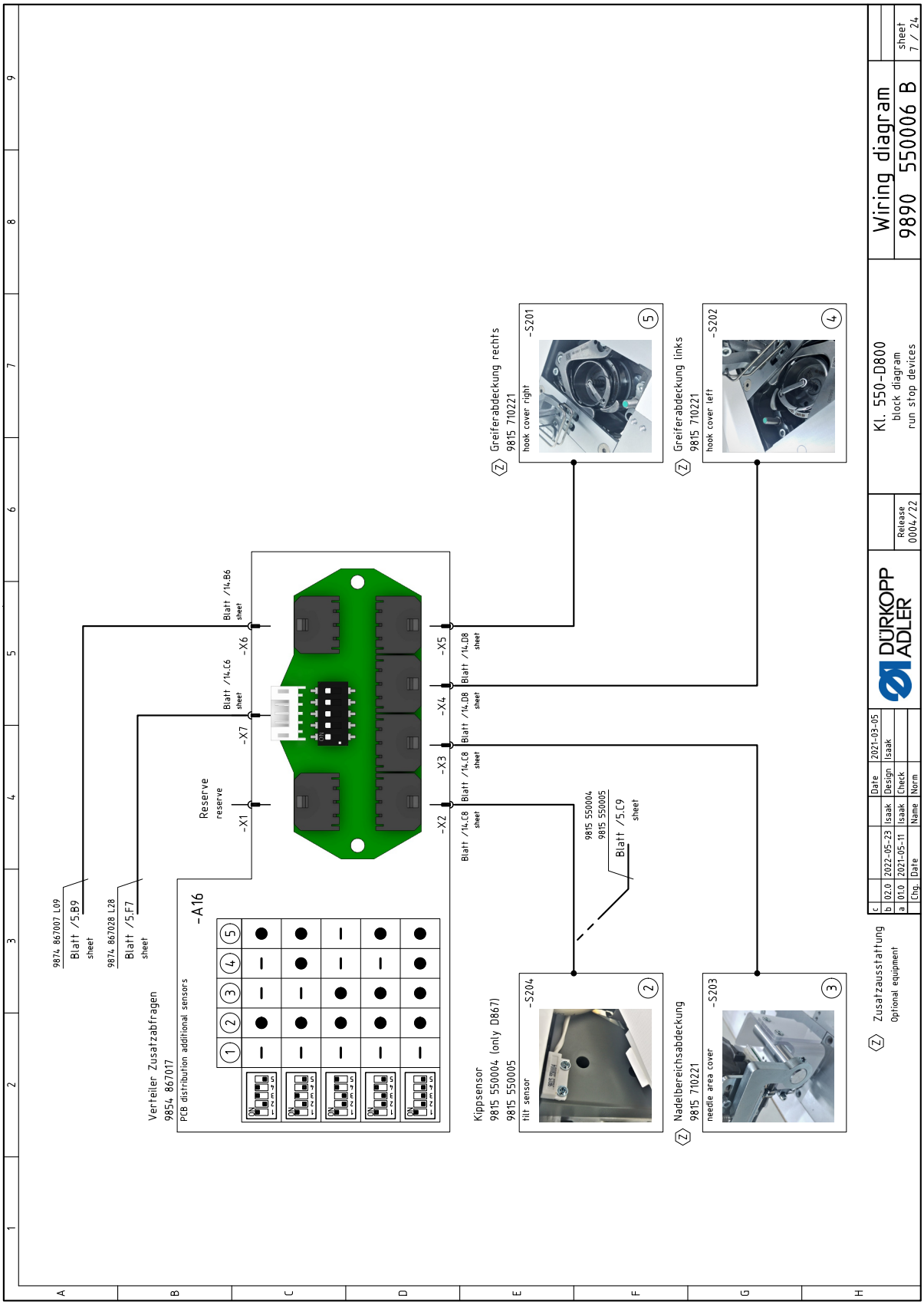


Fig. 233: Wiring diagram (8)

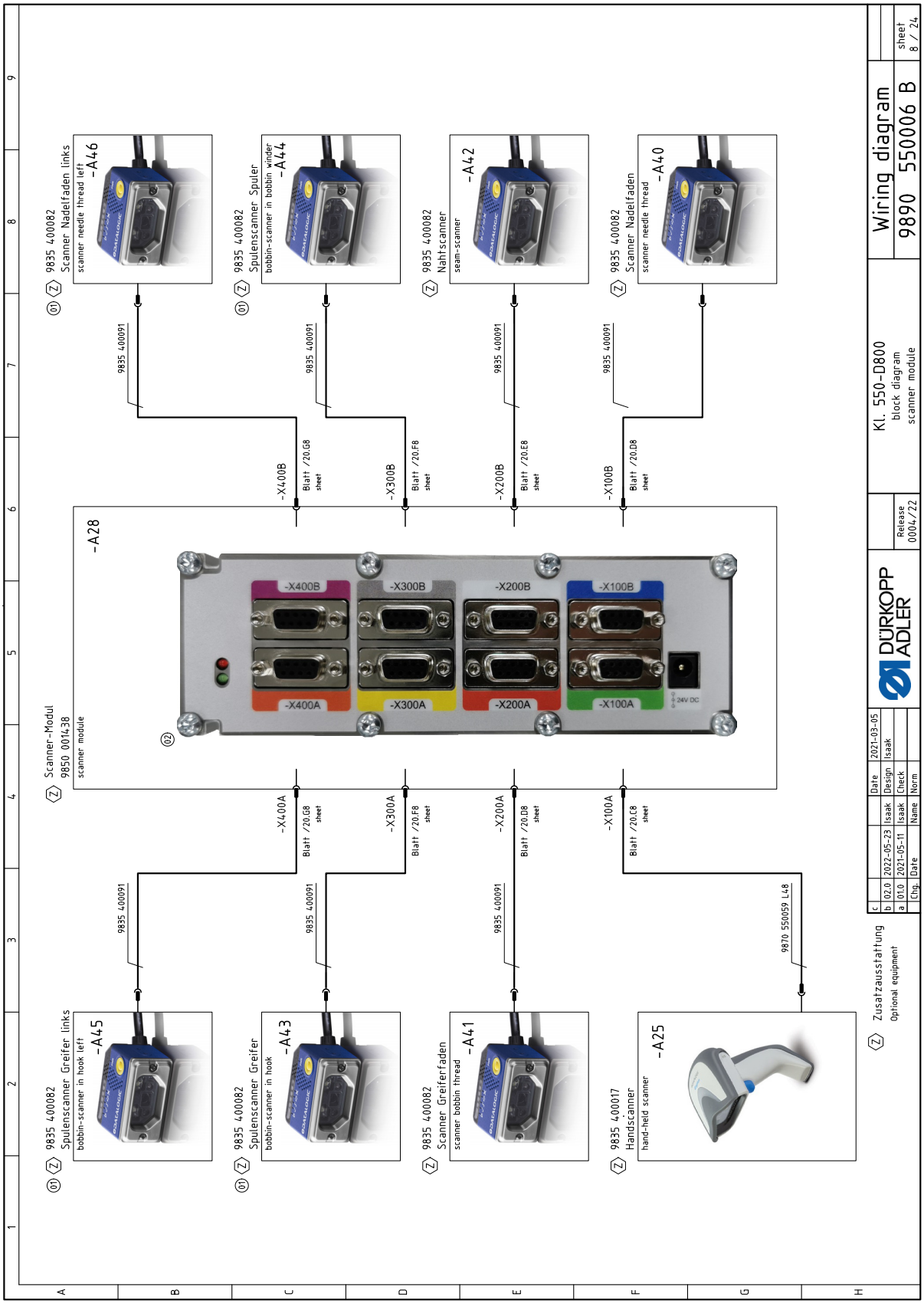


Fig. 234: Wiring diagram (9)

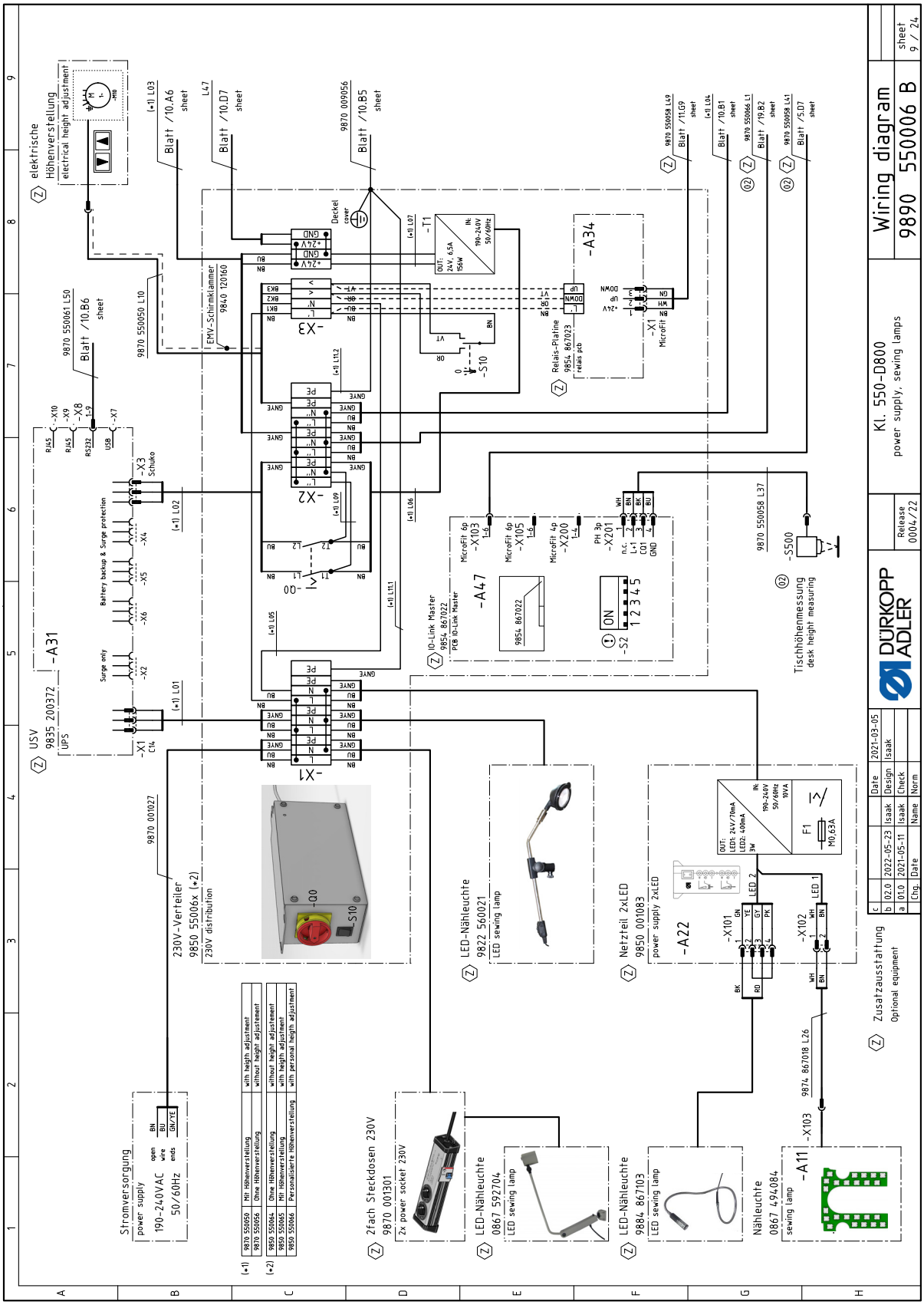


Fig. 235: Wiring diagram (10)

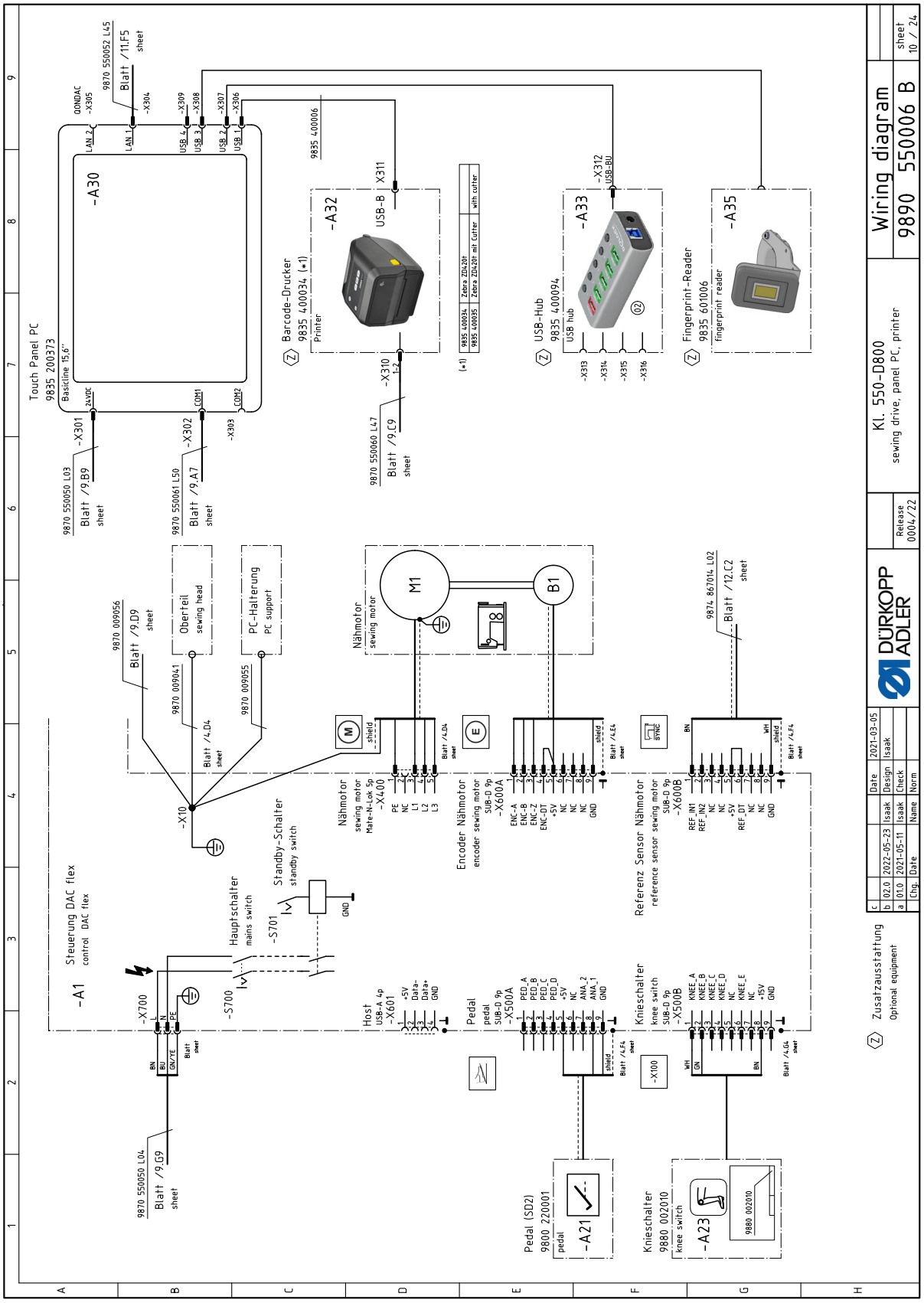


Fig. 236: Wiring diagram (11)

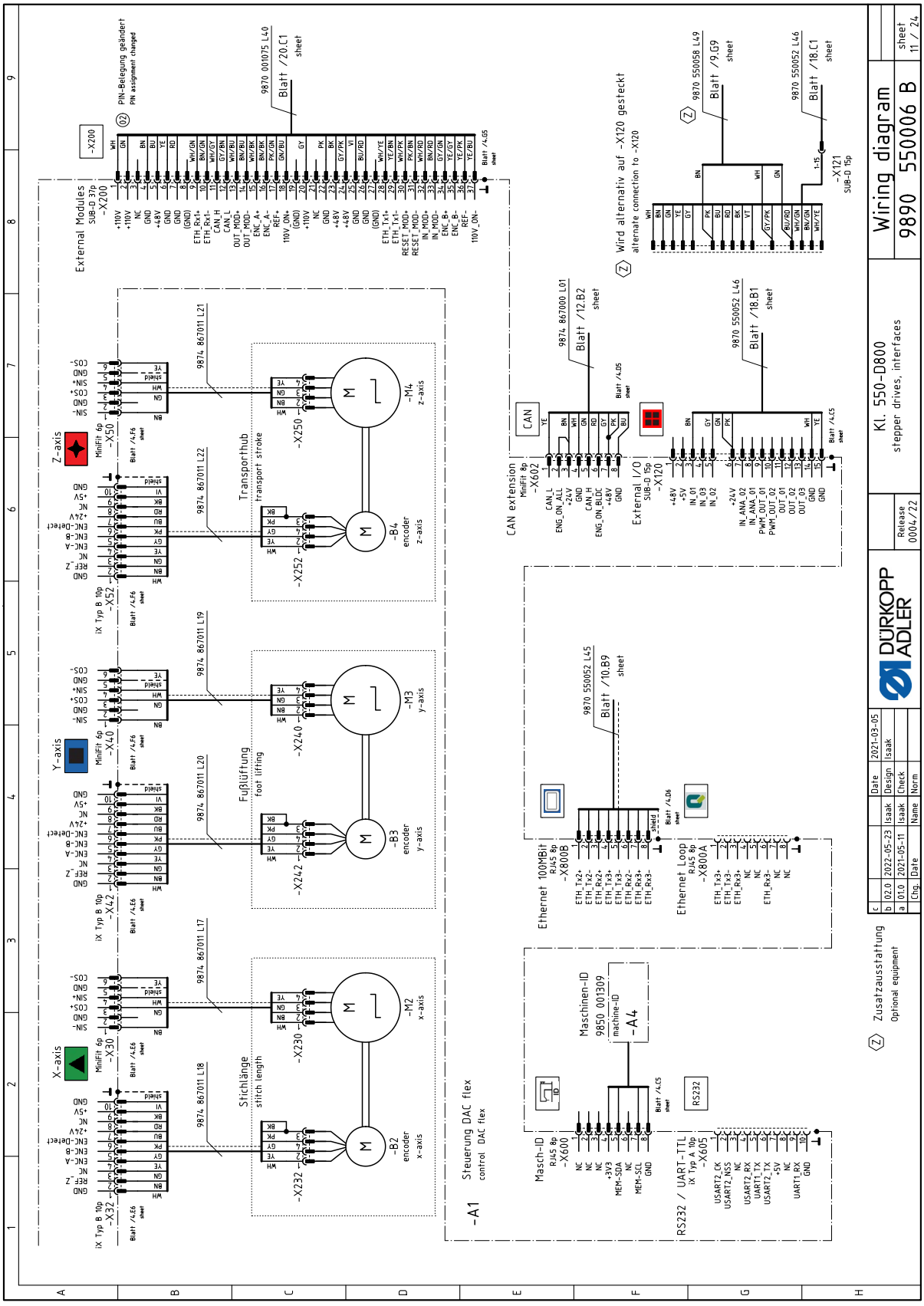


Fig. 237: Wiring diagram (12)

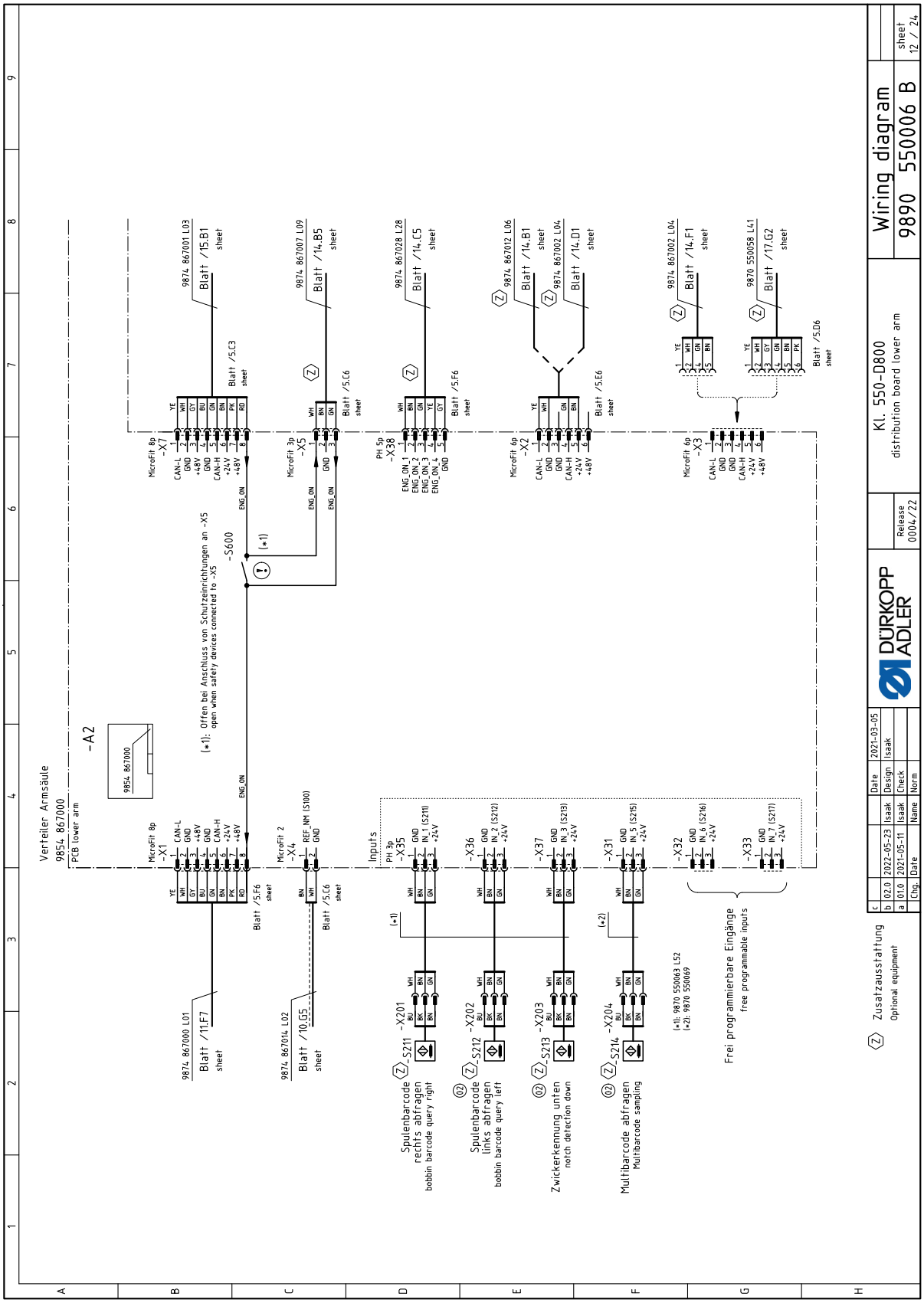


Fig. 238: Wiring diagram (13)

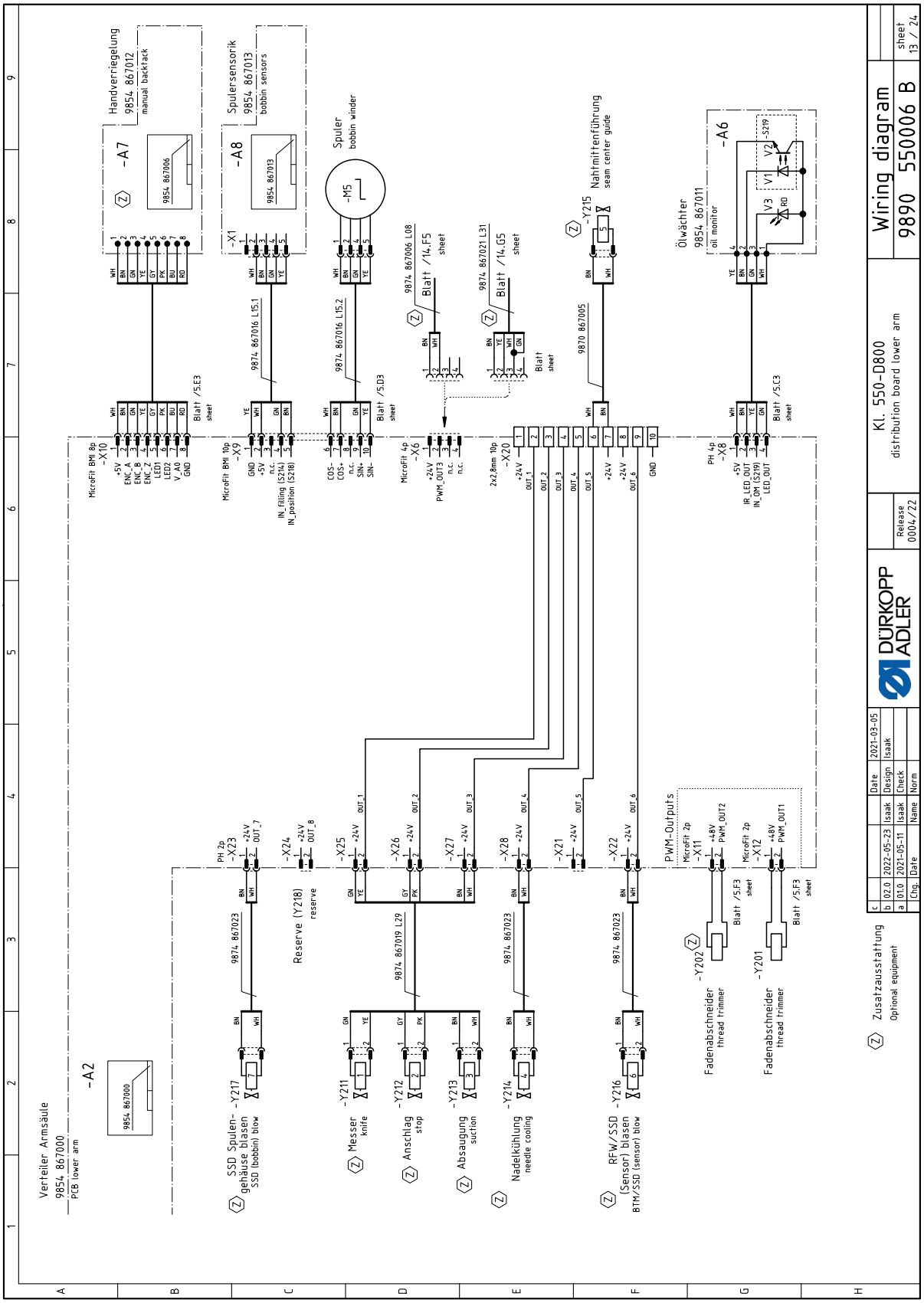


Fig. 239: Wiring diagram (14)

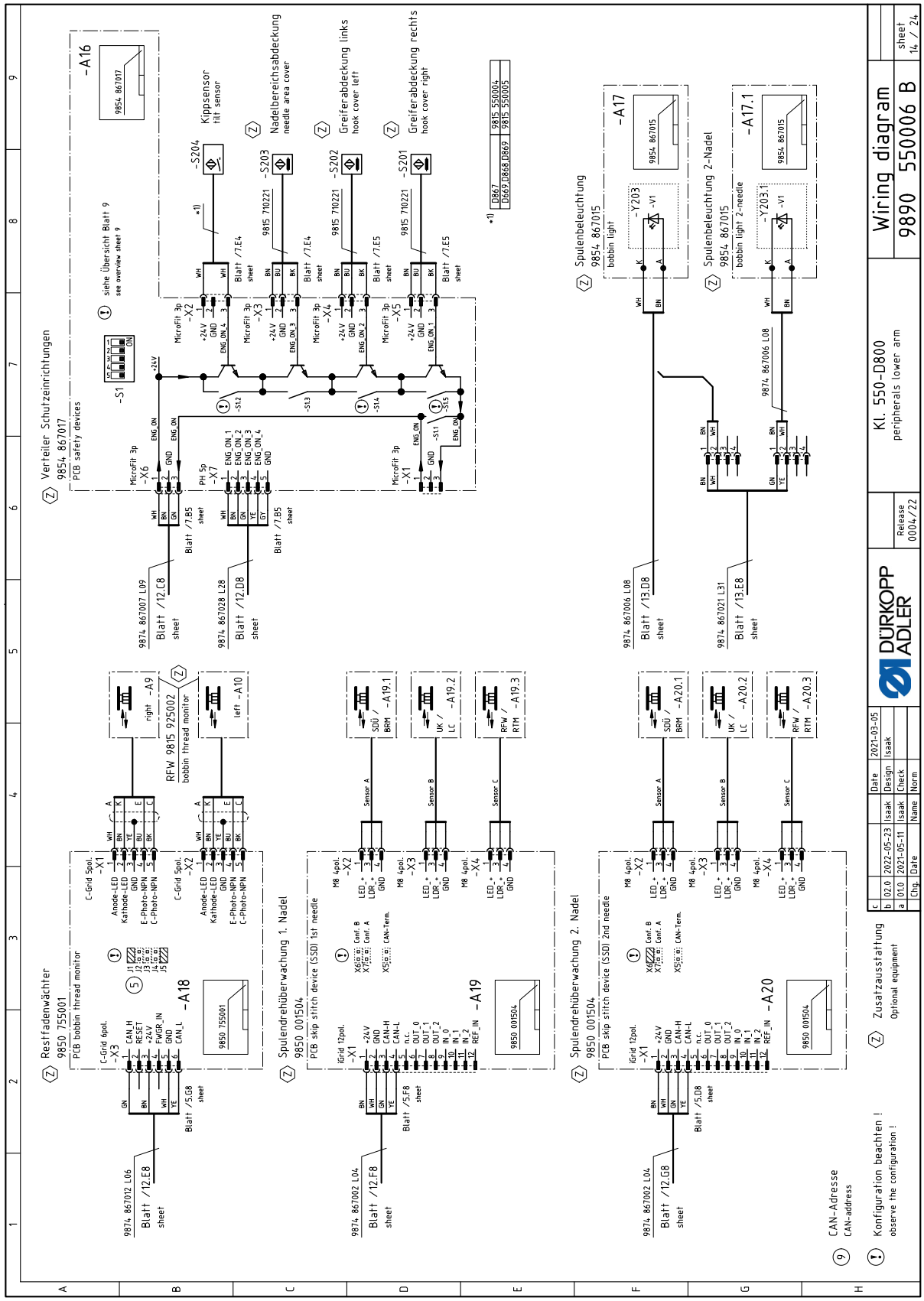


Fig. 240: Wiring diagram (15)

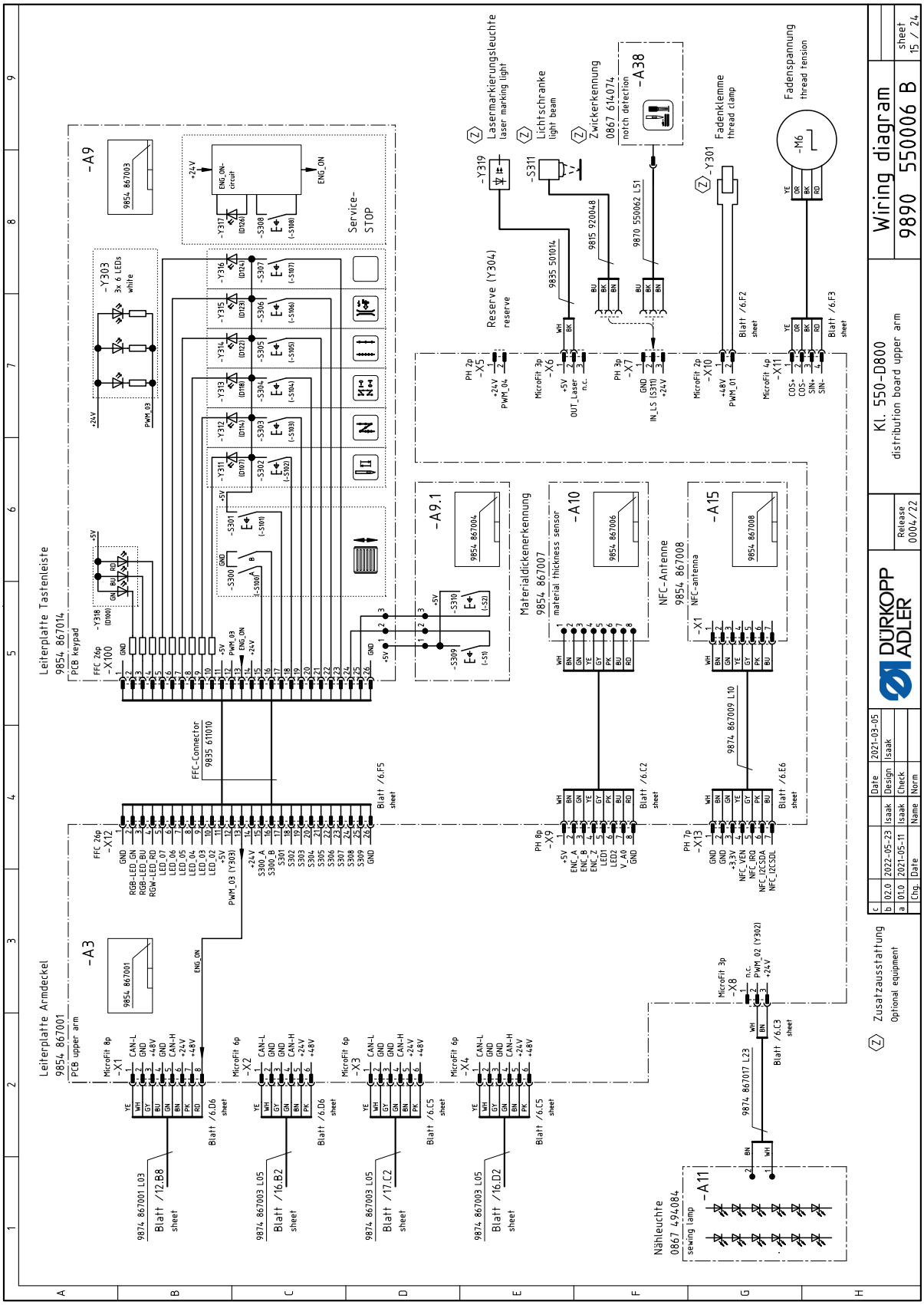


Fig. 241: Wiring diagram (16)

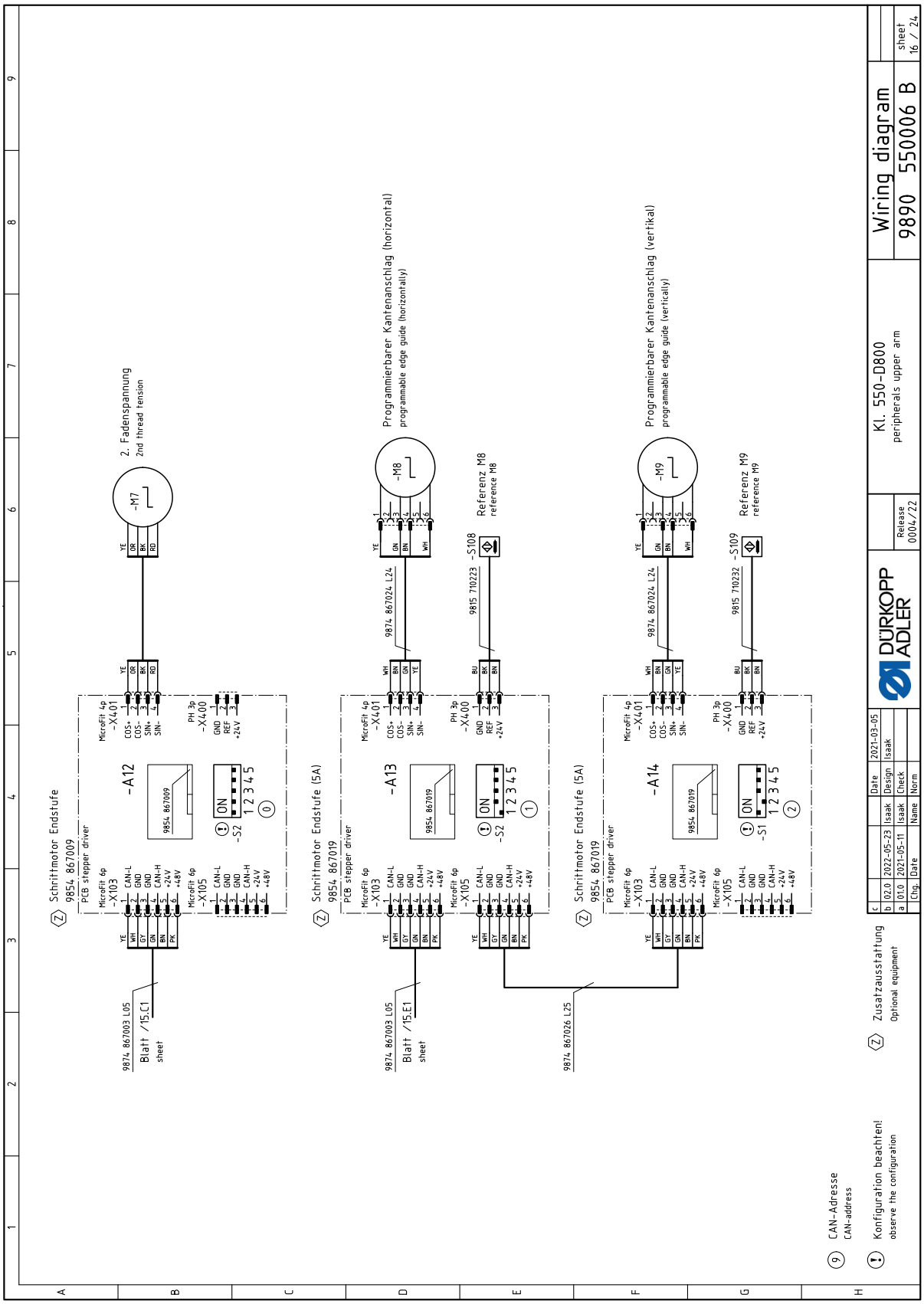


Fig. 242: Wiring diagram (17)

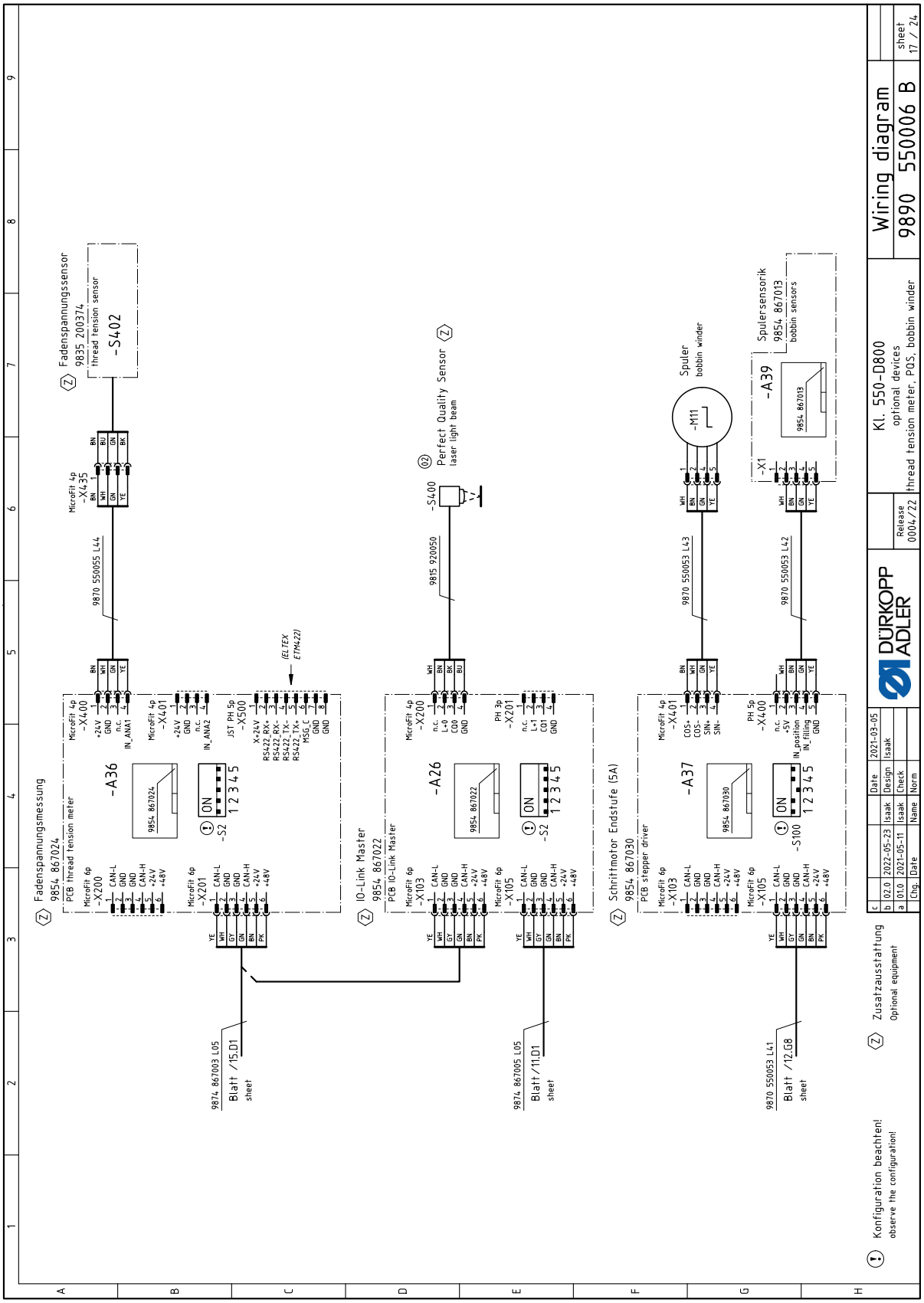


Fig. 243: Wiring diagram (18)

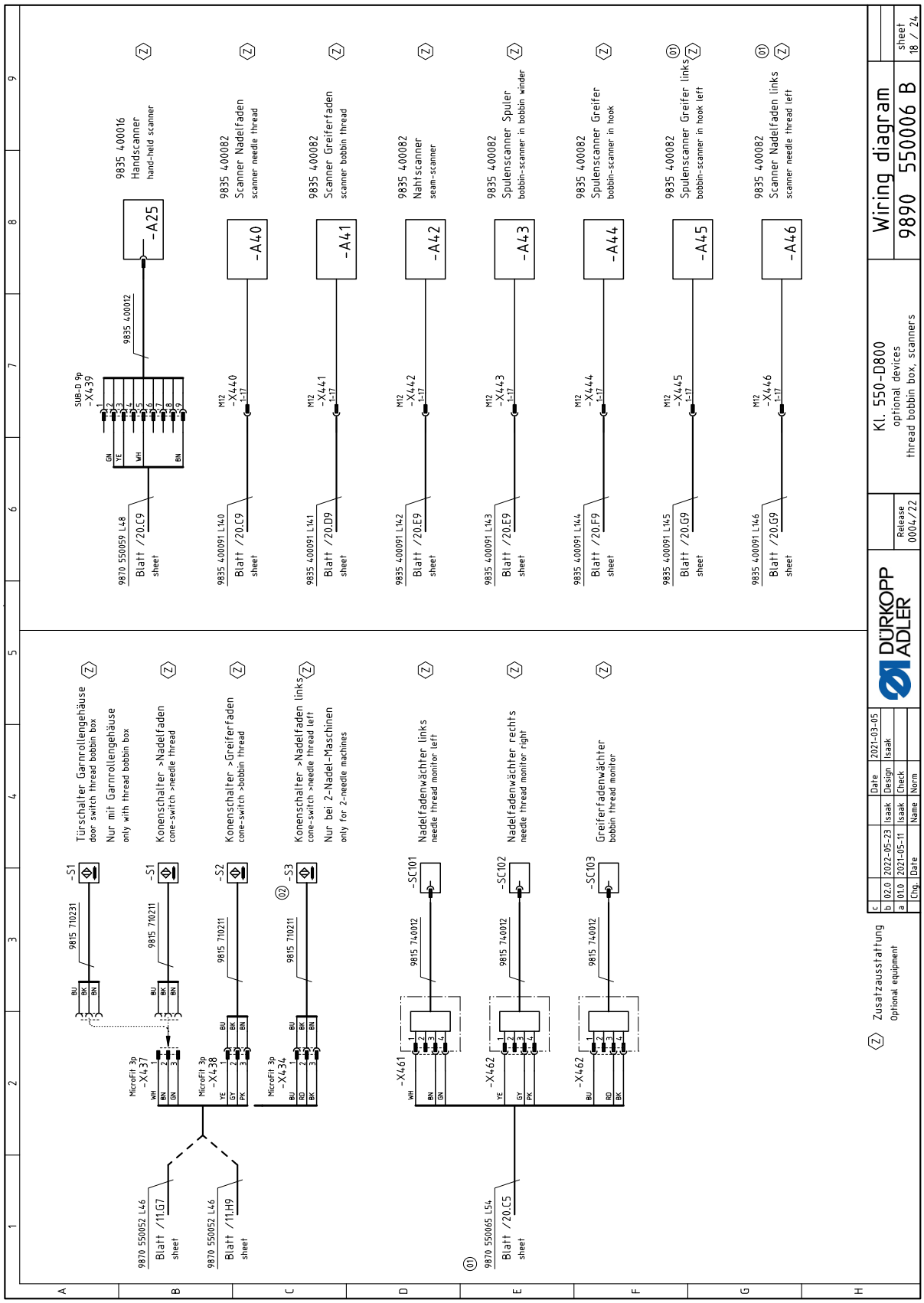


Fig. 244: Wiring diagram (19)

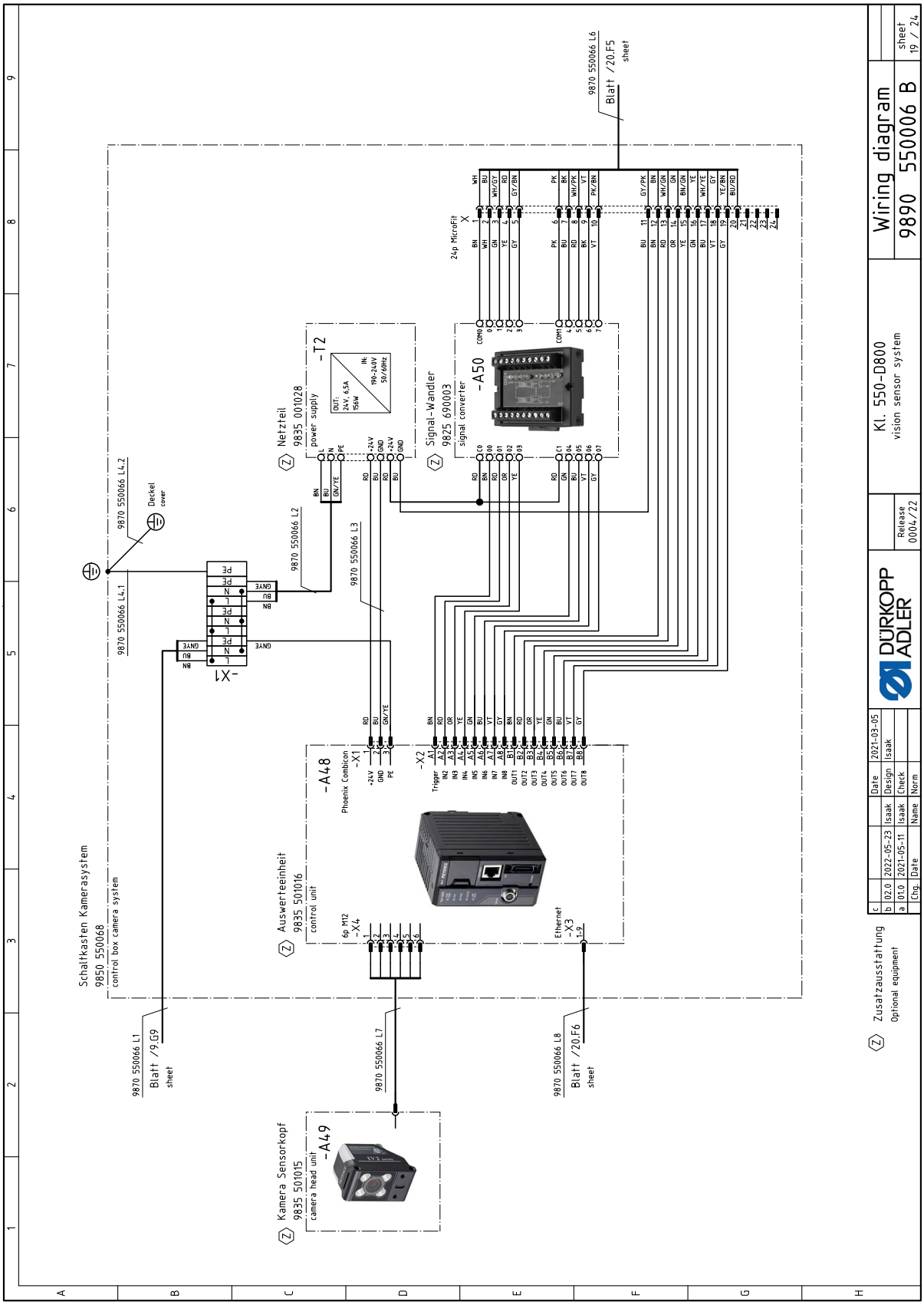


Fig. 245: Wiring diagram (20)

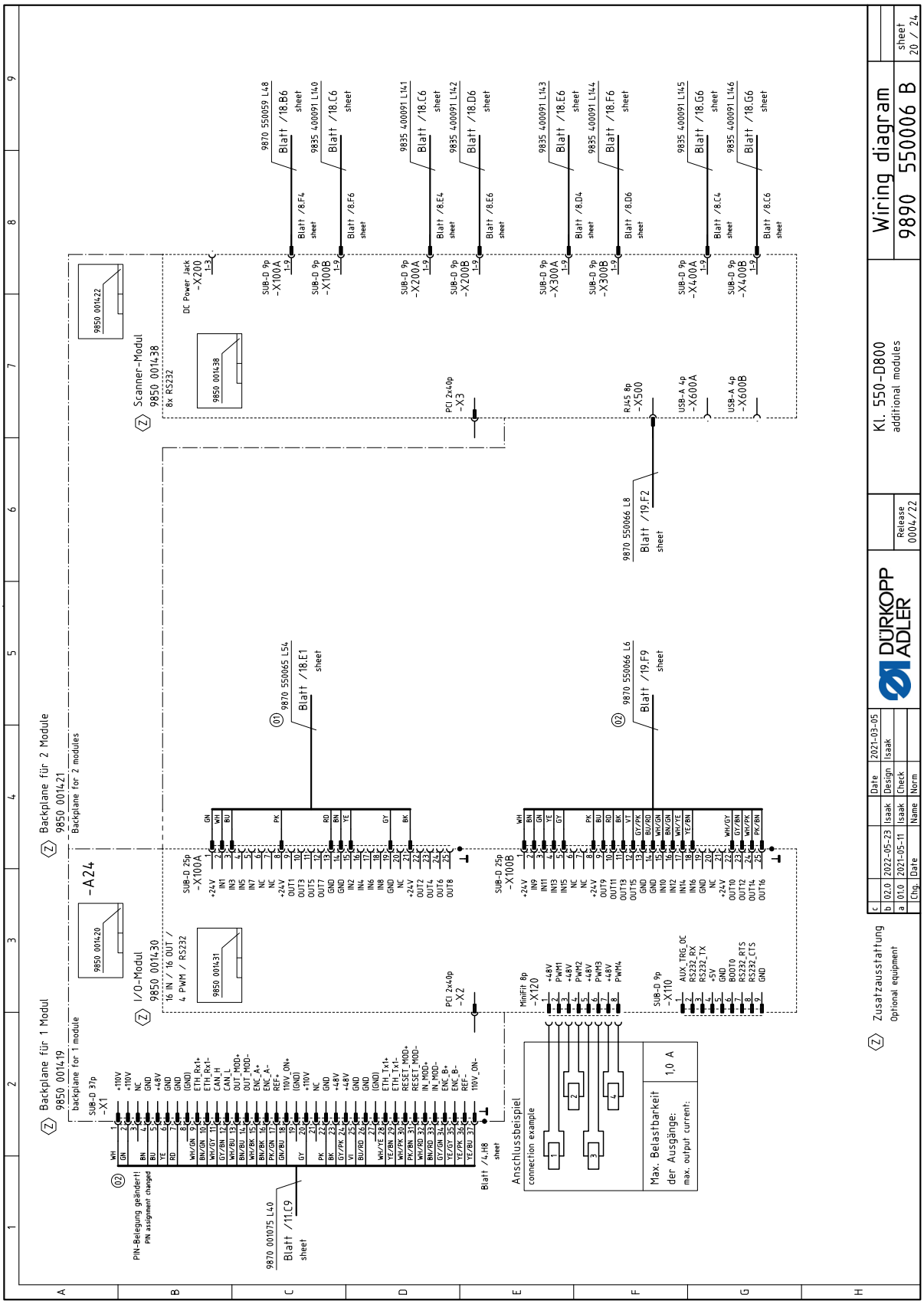


Fig. 246: Wiring diagram (21)

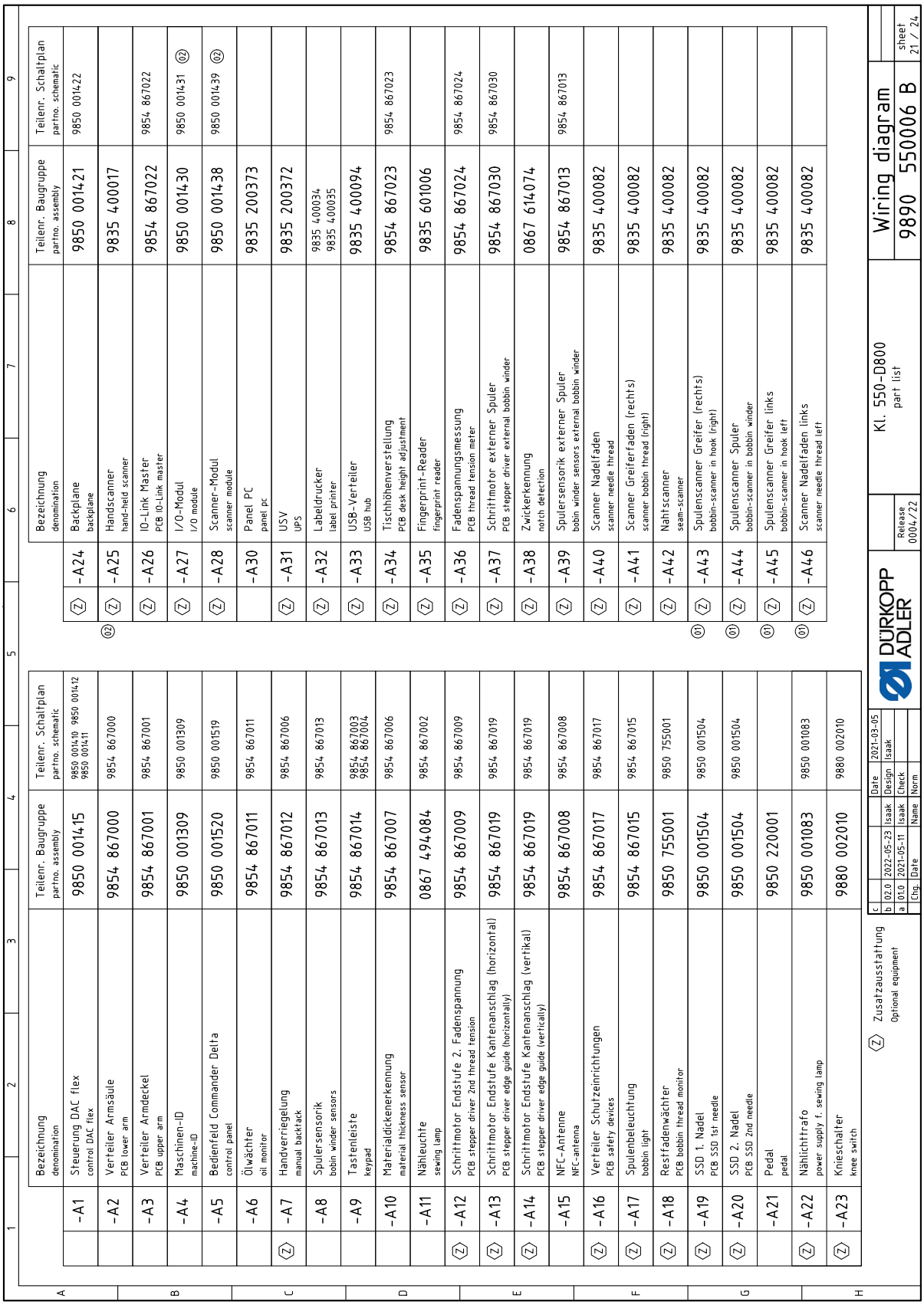


Fig. 247: Wiring diagram (22)

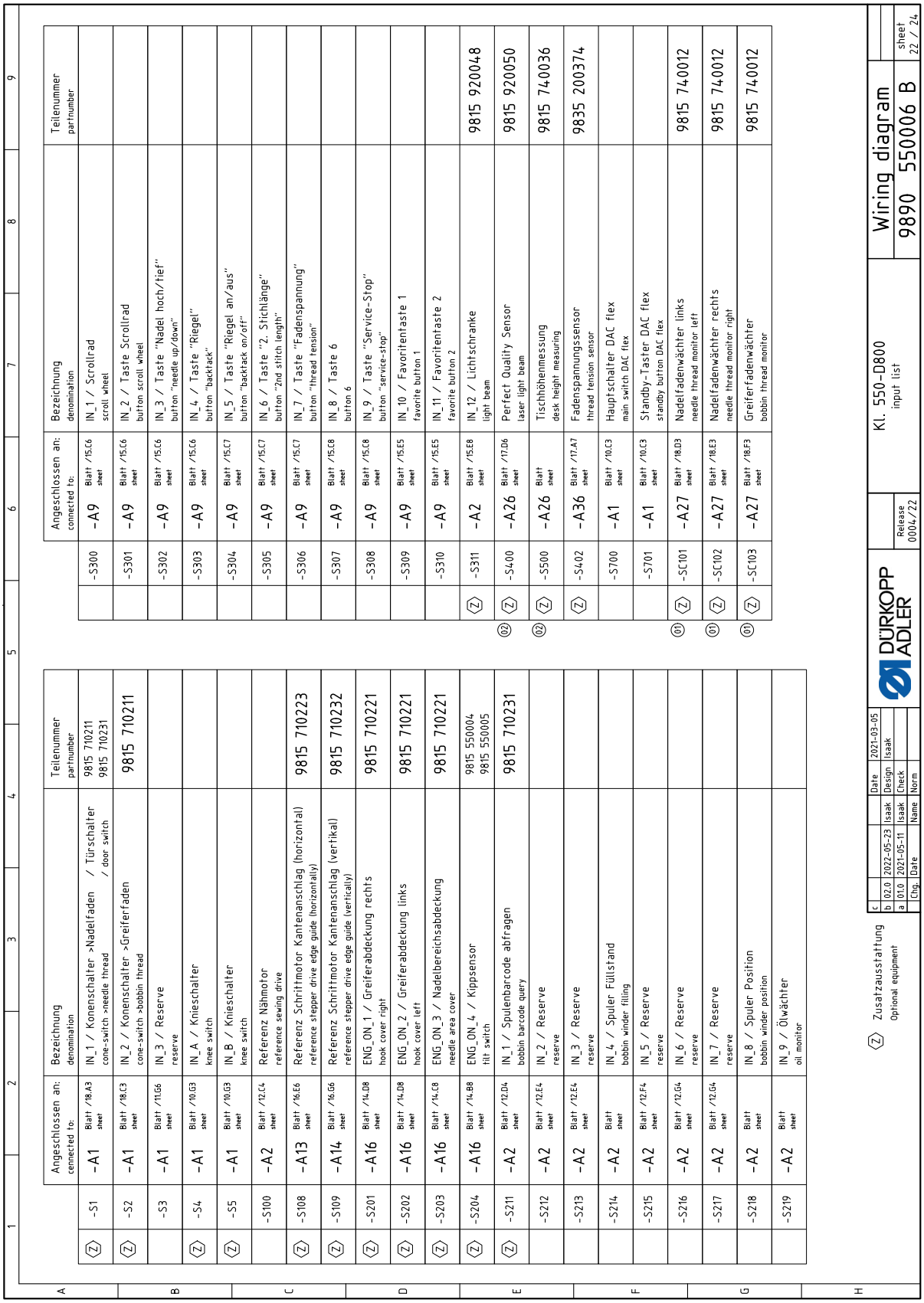


Fig. 248: Wiring diagram (23)

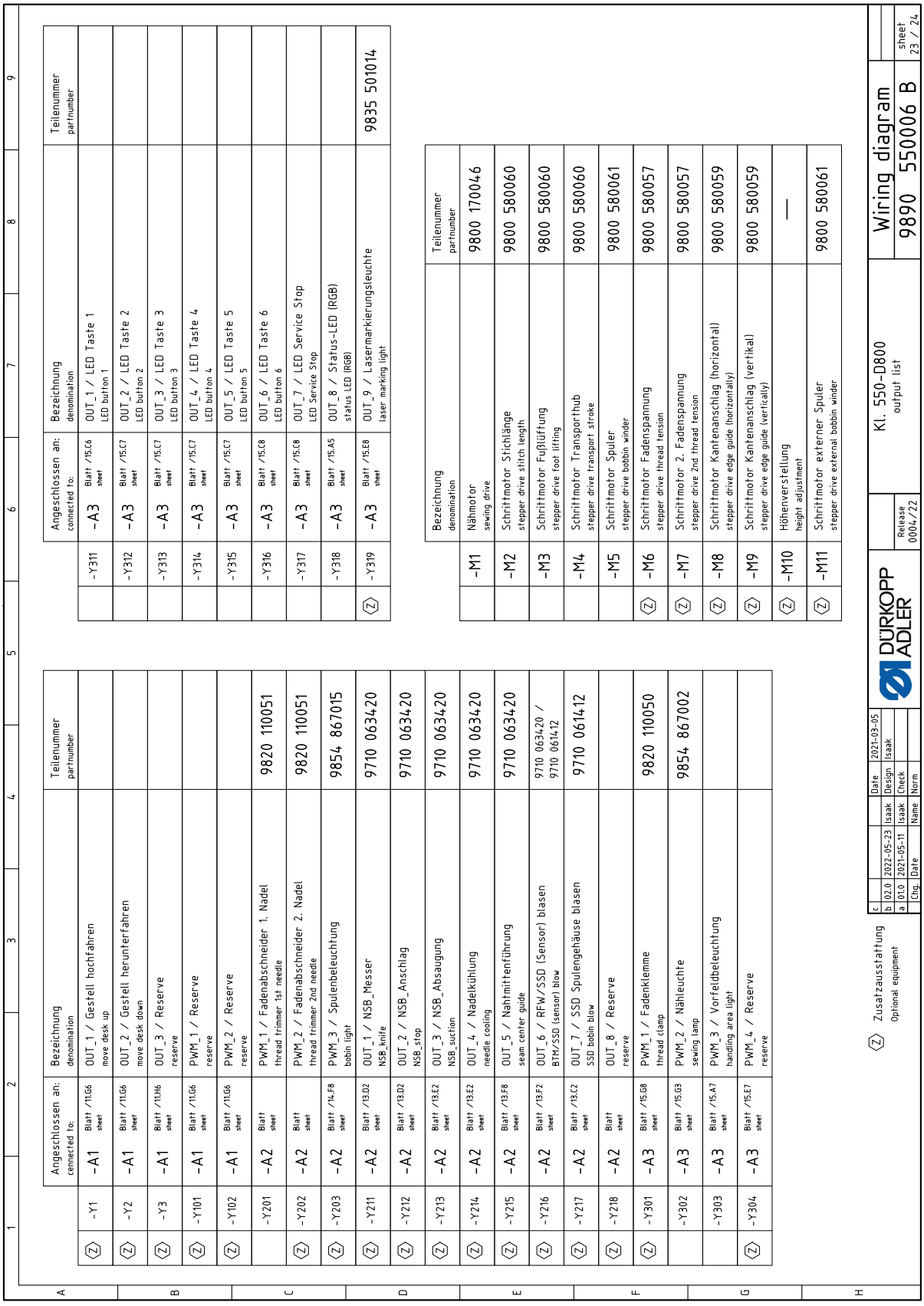
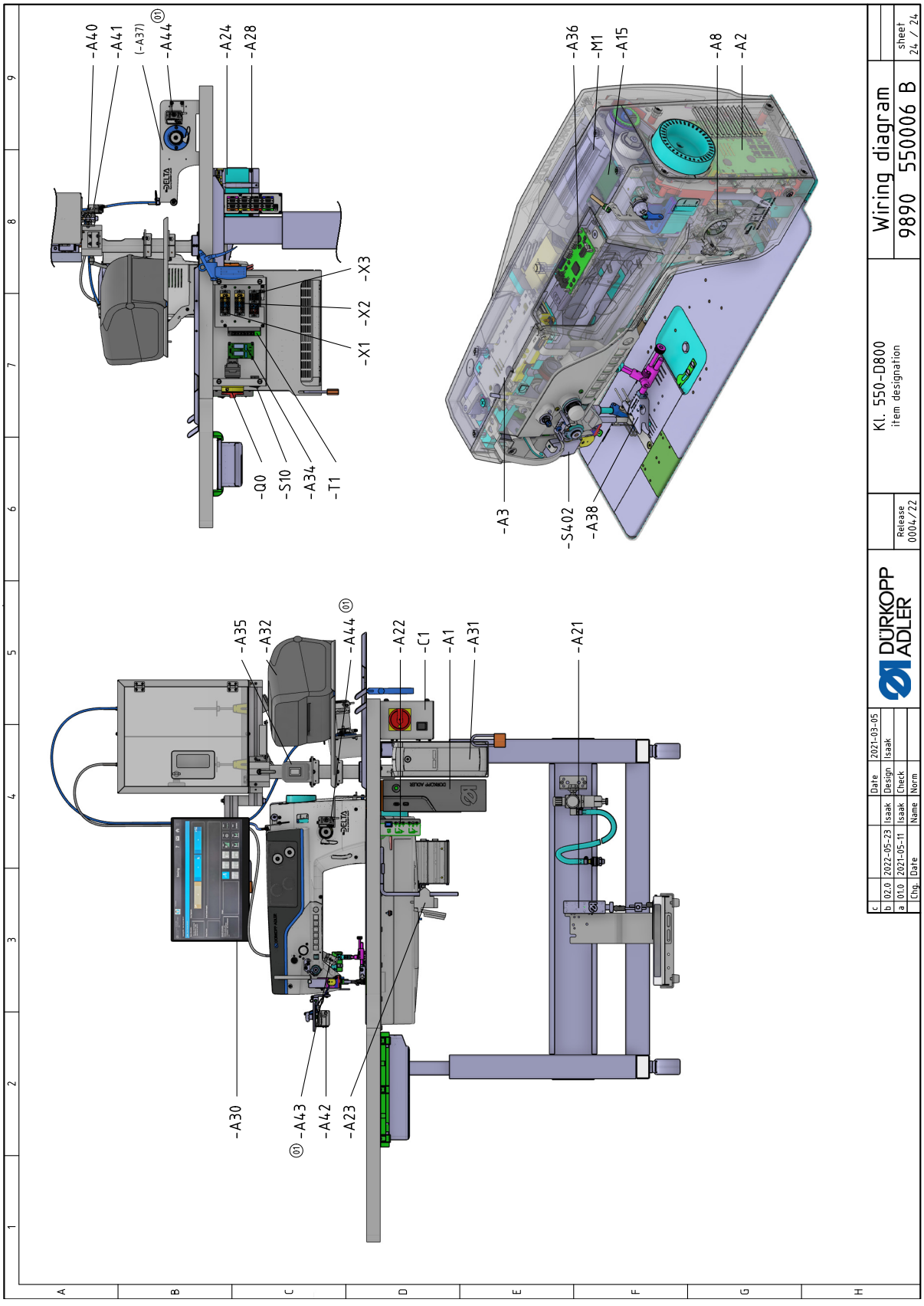


Fig. 249: Wiring diagram (24)



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