DÜRKOPP ADLER

550-867

Operating Instructions



IMPORTANT

READ CAREFULLY BEFORE USE

KEEP FOR FUTURE REFERENCE

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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. 267*).

Consider the instructions part of the product and store them in a place where they are readily available.

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. 21*) is important for the operators.
- Specialists:
  This group has the appropriate technical training for performing maintenance or repairing malfunctions. Specifically, the chapter **Setup** (📖 *p. 247*) 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 setting.



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 a setting.

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 damage during transport
- 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. Make sure to follow the information included 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.

The instructions should 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 forklift 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:

- set up the machine
- perform maintenance work and repairs
- perform 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 removed or deactivated. If it is essential to remove 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
	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.

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.

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.

3 Machine description

3.1 Components of the machine

3.1.1 Complete overview

Fig. 1: Complete overview



3.1.2 Upper part of the machine

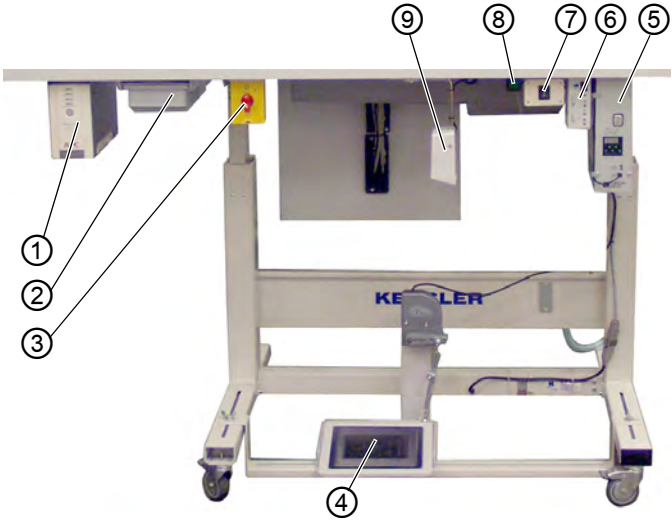
Fig. 2: Upper part of the machine



(1) - Thread reel stand
(2) - External winder
(3) - End label scanner (optional)
(4) - Hand scanner
(5) - End label printer
(6) - Control panel with touchscreen

3.1.3 Lower part of the machine

Fig. 3: Lower part of the machine



(1) - Uninterrupted power supply (UPS)
(2) - Tray
(3) - Main switch
(4) - Pedal
(5) - Control
(6) - Sewing lamp transformer
(7) - Switch (height adjustment)
(8) - Switch (logging in and out)
(9) - Knee button

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. 277*) 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.

CE

4 Operation

The operating sequence on this machine 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 barcodes (📖 *p. 23*)
- Log in (📖 *p. 87*)
- Insert or change the needle(📖 *p. 26*)
- Feed the needle thread through the hose guide (📖 *p. 28*)
- Thread needle thread (📖 *p. 31*)
- Thread the hook thread (📖 *p. 40*)
- Edit the seam record set if necessary (📖 *p. 100*)

4.1.1 Switching on the machine

WARNING



Risk of injury from moving, cutting and sharp parts!

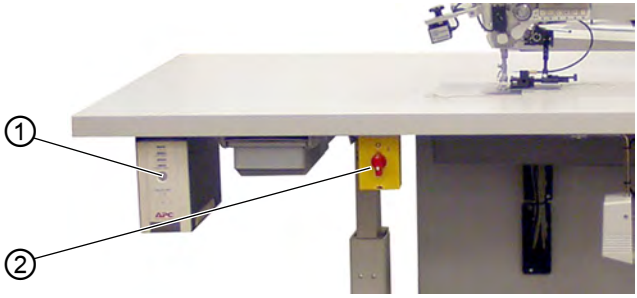
Crushing, cutting and punctures are possible.

Do not sew unless the machine is fully assembled and all guards have been assembled.

Information

When switching on the machine for the first time, proceed as described in the **Setup** chapter (📖 *p. 259*).

Fig. 4: Switching on the machine



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

To switch on the machine:

1. Press the switch (1) to switch on the uninterrupted power supply (UPS).
   - The green **On Line** lamp flashes.
   - The orange **On Battery** flashes and goes out after a few seconds.
   - The green **On Line** lamp is now lit permanently, indicating that the UPS is ready for use.
2. Set the main switch (2) to position **1**.
   - Windows boots up, and the software launches. The machine is checked and initialized.

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. 63*)
- Barcode of the hook thread reel (📖 *p. 63*)
- Barcode of the bobbin (optional, 📖 *p. 64*)

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

Fig. 5: Scanning barcodes (1)



To scan the barcodes:

1. Switch on the machine (📖 *p. 22*).
2. Use the hand scanner or the thread barcode scanner (optional, 📖 *p. 63*) to scan the barcode of the needle thread reel.
3. Use the hand scanner or the hook thread barcode scanner (optional, 📖 *p. 63*) 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 (📖 *p. 63*).

↳ The display switches to:

Fig. 6: Scanning barcodes (2)

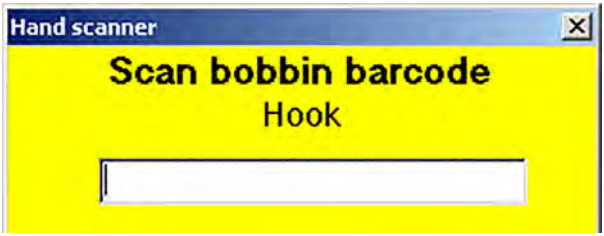
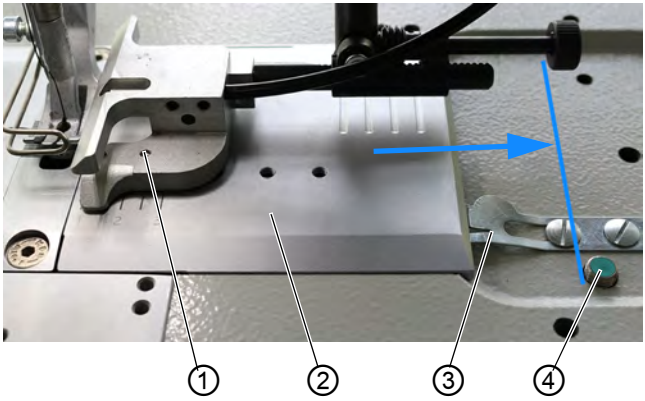


Fig. 7: Scanning barcodes (3)



(1) - Edge stop
(2) - Hook cover
(3) - Locking mechanism
(4) - Proximity switch

4. Fold up the edge stop (1).
5. Push the locking mechanism (3) down and keep it pressed.

↳ 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 the hook cover (2) is no longer positioned above the proximity switch (4).

6. 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. 8: Scanning barcodes (4)



(5) - Bobbin

↳ Once the bobbin (5) is positioned properly inside the hook, the barcode will be captured automatically.

7. If the bobbin (5) is not quite seated correctly so that the barcode cannot be read, carefully pull on the hook thread and turn the bobbin to the correct position.

↳ 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 stop (1) back down

↳ The machine is ready for operation. You can now put the machine into operation for the first time (📖 *p. 26*) or log in right away (📖 *p. 87*).

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. 272*).

4.1.3 Inserting/changing the needle

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

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

NOTICE

Property damage may occur!

Damage to the thread or skipped stitched if using thinner needles. Damage to the hook tip or the needle if using thicker needles.

When using needles with a different thickness, correct the settings accordingly (📖 *p. 153*).

Fig. 9: Inserting/changing the needle (1)

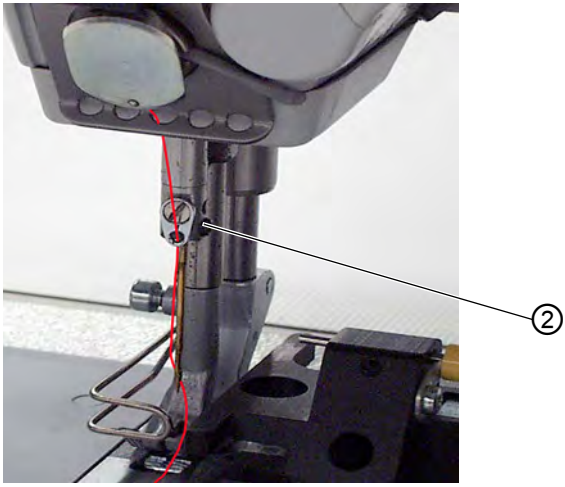


(1) - Switch

To insert or change the needle:

1. Set the switch (1) of the control to position **0**.
2. Turn the handwheel until the needle bar is at the top dead center.

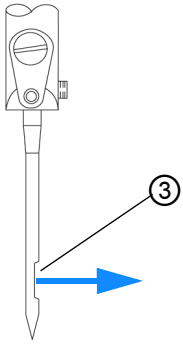
Fig. 10: Inserting/changing the needle (2)



(2) - Screw

3. Loosen the screw (2).
4. Remove the needle.

Fig. 11: Inserting/changing the needle (3)



(3) - Groove

5. Insert a new needle with the groove (3) facing the hook and slide it up as far as it will go.
6. Tighten the screw (2).

The needle has been changed / inserted successfully.

4.1.4 Feeding needle and hook thread

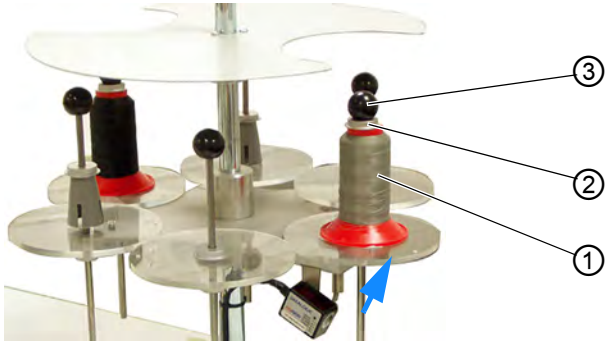
WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

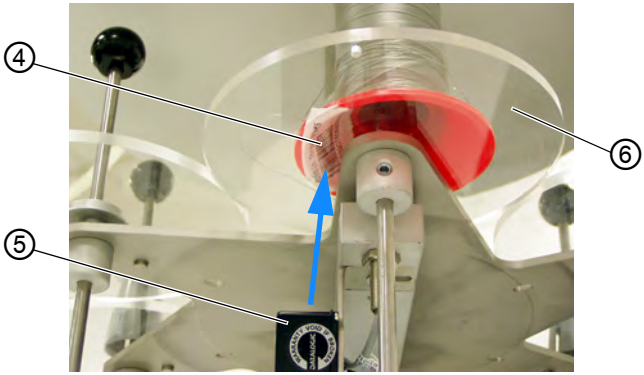
Only feed needle and hook thread with the machine switched off.

Fig. 12: Feeding needle and hook thread (1)



(1) - Thread reel
(2) - Washer
(3) - Ball

Fig. 13: Feeding needle and hook thread (2)



(4) - Needle/hook thread barcode
(5) - Barcode scanner (for the barcodes of needle and hook thread)
(6) - Thread reel holder

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

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

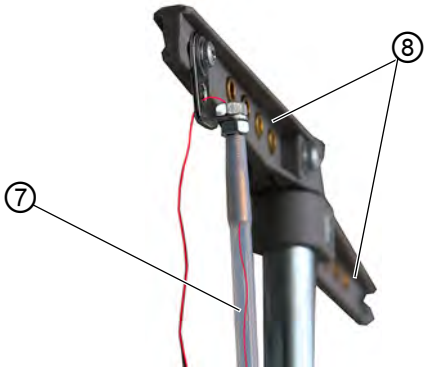
1. Loosen the ball (3).
2. Remove the washer (2).
3. On a machine **without** a barcode scanner (5) for the needle/hook thread:
   Use the hand scanner to scan the needle/hook thread barcode.
   Fit the thread reel (1) on a thread reel holder (6).
   On a machine **with** a barcode scanner (5) for the needle/hook thread (optional, 📖 *p. 63*):
   Fit the thread reel (1) on a thread reel holder (6).
   Make sure that the needle/hook thread barcode (4) can be scanned by the barcode scanner (5).

Information
If the needle/hook thread barcode (4) is not detected by the barcode scanner (5), a message will appear on the control panel.

If this happens, align the thread reel (1) anew and scan the needle/hook thread barcode (4) again.

4. Tighten the thread reel (1) with the washer (2) and the ball (3).

Fig. 14: Feeding needle and hook thread (3)



(7) - Hose guide *(8) - Thread guide*

5. Insert the needle/hook thread through the thread guide (8).
   - The thread guide (8) must stand directly above the thread reel (1).
6. Use a compressed air gun to blow the needle/hook thread through the hose guide (7).

Information
To blow the needle/hook thread through the hose guide (7) with the help of compressed air, position the compressed air gun together with the end of the needle/hook thread at the upper end of the hose guide (7). Briefly squeeze the trigger once.

You can now thread the needle/hook thread (📖 *p. 31* and 📖 *p. 34*) and set the thread tension (📖 *p. 41*).

4.1.5 Threading the needle thread

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only thread the needle thread with the machine switched off.

The 550-867 machine comes in two models:

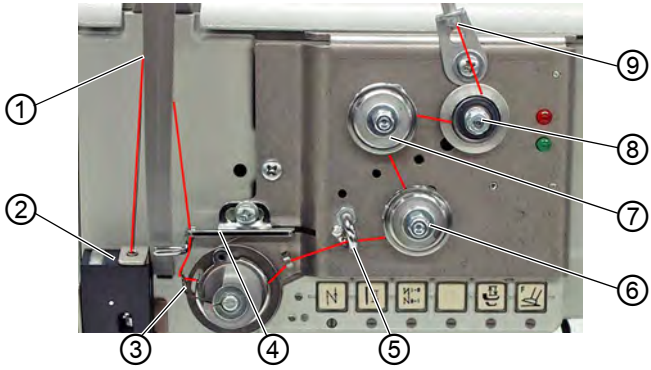
- with mechanically regulated needle thread tension (MTT)
- with electronically regulated needle thread tension (ETT)

Information

The needle thread cannot be threaded at the tensioning plate until it has been fed correctly through the hose guide (📖 *p. 28*).

Needle thread guide on machines equipped with ETT

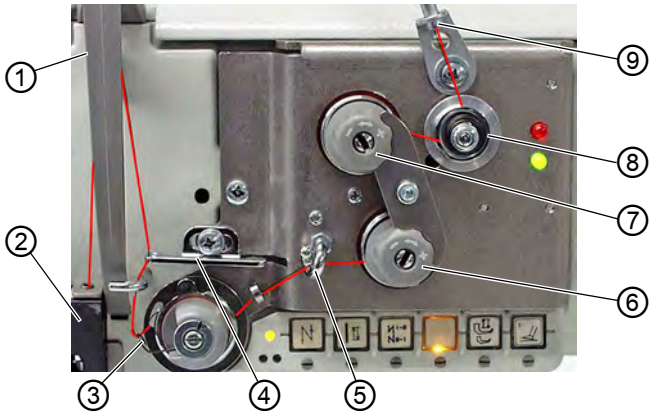
Fig. 15: Threading the needle thread (1)



(1) - Thread lever (not visible)
(2) - Thread force sensor
(3) - Thread tension spring
(4) - Thread regulator
(5) - Guide
(6) - Tensioner
(7) - Tensioner
(8) - Pre-tensioner
(9) - Guide

Needle thread guide on machines with mechanically regulated needle thread tension

Fig. 16: Threading the needle thread (2)

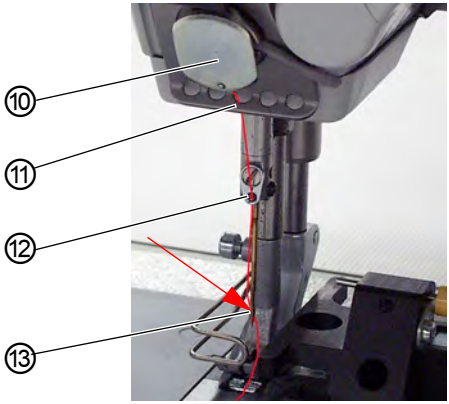


(1) - Thread lever (not visible)
(2) - Thread force sensor
(3) - Thread tension spring
(4) - Thread regulator
(5) - Guide
(6) - Tensioner
(7) - Tensioner
(8) - Pre-tensioner
(9) - Guide

To thread the needle thread:

1. Feed the needle thread through the guide (9) and clockwise around the pre-tensioner (8).
2. Guide the needle thread counterclockwise around the tensioner (7).
3. Guide the needle thread clockwise around the tensioner (6).
4. Insert the needle thread through the guide (5).
5. Feed the needle thread under the thread tension spring (3) and through the thread regulator (4) to the thread lever (1).
6. Insert the needle thread through the thread lever (1) and the thread force sensor (2).

Fig. 17: Threading the needle thread (3)



(10) - Thread clamp
(11) - Thread guide
(12) - Thread guide
(13) - Needle eye

7. Thread the needle thread through the thread clamp (10) and the thread guides (11) and (12) to the needle bar.
8. Insert the needle thread from the left into the needle eye (13).

Important

Before you can start a sewing process, you need to set the needle thread tension (📖 *p. 43*).

4.1.6 Winding the hook thread

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only wind the hook thread with the machine switched off.

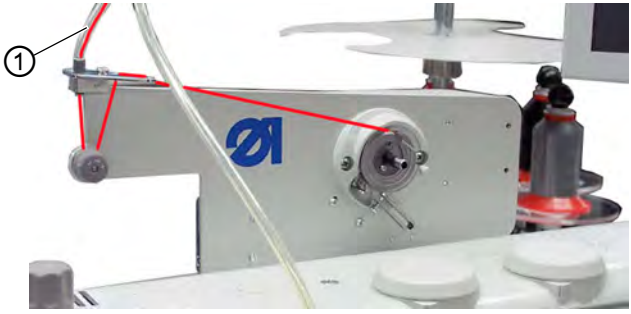
NOTICE

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.

Fig. 18: Winding the hook thread (1)I

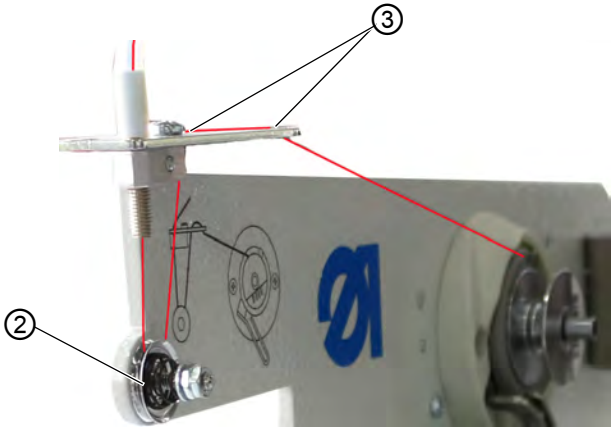


(1) - Hose guide

Information

The hook thread can be wound on when it has been fed correctly through the hose guide (1) (📖 *p. 28*).

Fig. 19: Winding the hook thread (2)



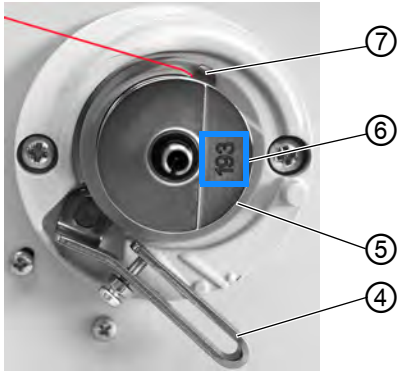
(2) - Tensioner
(3) - Guides

To wind the hook thread:

1. Feed the hook thread counterclockwise from the hose guide (1) around the tensioner (2).

Information
Use the figure on the machine as a reference.

Fig. 20: Winding the hook thread (3)



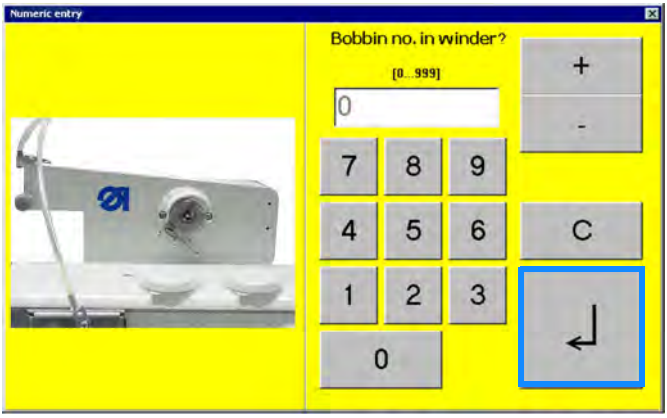
(4) - Bobbin lever
(5) - Winder
(6) - Bobbin number
(7) - Thread-pulling knife

2. Feed the hook thread through the guides (3) to the winder (5).
3. Pull the beginning of the thread behind the thread-pulling knife (7) and tear it off.
4. Push the bobbin lever (4) up against the empty bobbin.

↳ The bobbin lever (4) clicks audibly into place.

↳ An input field appears:

Fig. 21: Winding the hook thread (4)



5. Enter the bobbin number (6).

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

6. Confirm with ↵.

↳ The thread is wound on.

↳ Winding is stopped automatically by the bobbin lever (4) when the bobbin is full. The bobbin lever (4) will then click audibly into place.

7. To interrupt the winding process prematurely, push the bobbin lever (4) down and away from the bobbin.

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

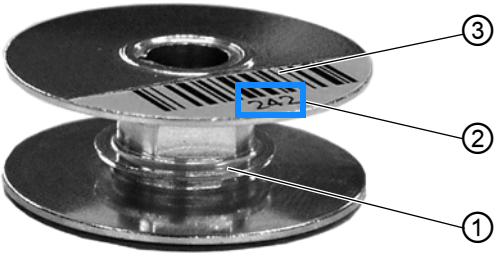
Property damage may occur!

Damage to the machine.

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

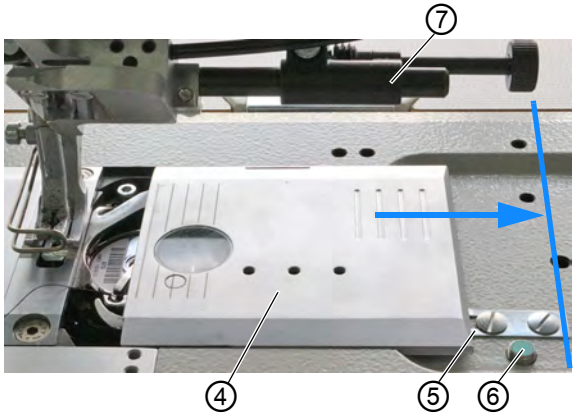
Use compressed air to remove any lint from the area around the bobbin case and the light barrier every time you change the bobbin.

Fig. 22: Inserting/changing the bobbin (1)



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

Fig. 23: Inserting/changing the bobbin (2)



(4) - Hook cover
(5) - Locking mechanism
(6) - Proximity switch
(7) - Edge stop

To insert or change the bobbin housed in the hook:

1. Fold up the edge stop (7).
2. Push the locking mechanism (5) down and keep it pressed.
3. Slide the hook cover (4) to the right.

↳ The hook cover (4) must be pushed past the proximity switch (6) as it will otherwise not be possible to remove the bobbin from the hook and to re-insert it.

↳ The hook cover (4) is now unlocked; the bobbin can be inserted.

Fig. 24: 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 using compressed air (optional, 📖 *p. 238*).
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.
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 thread 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) (optional, 📖 *p. 64*).
10. Slide the hook cover (4) back to the left.



Information
The remaining thread monitor is not active unless it has been activated under components as `Light barrier winder to check if thread on bobbin` (📖 *p. 143*).

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 lint from the bobbin case retainer and the sensor of the remaining thread monitor.

Fig. 25: Threading the hook thread (1)

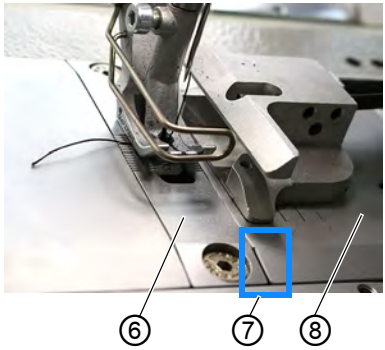


(1) - Slot
(2) - Guide
(3) - Spring
(4) - Slot
(5) - Bobbin case retainer

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 (optional, 📖 *p. 64*).
4. Pull the hook thread through the guide (2) of the bobbin case retainer (5).

Fig. 26: 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.

4.2 Thread tension

NOTICE

Property damage may occur!

Damage to the machine.

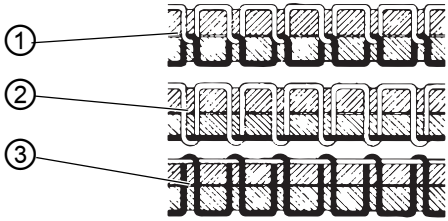
Ensure that the supply groove is facing the machine during winding. This ensures that the thread will be wound through the supply groove first.

Together with the hook thread tension, the needle thread tension influences the final seam record set. With thin sewing material, excessive thread tension can lead to undesired gathering and thread breakage.

Proper setting

If the tension of needle thread and hook thread is identical, the thread interlacing lies in the middle of the sewing material.
Set the needle thread tension so that the desired seam record set is achieved with the lowest possible tension.

Fig. 27: 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

The 550-867 machine comes in two models:

- with electronically regulated needle thread tension (ETT, 📖 *p. 43*)
- with mechanically regulated needle thread tension (📖 *p. 44*)

4.2.1 Setting the hook thread tension

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only set the hook thread tension with the machine switched off.

Fig. 28: Setting the hook thread tension



(1) - Tension spring *(2) - Adjusting screw*

To set the hook thread tension:



1. To increase the hook thread tension, turn the adjusting screw (2) clockwise.

   ↳ The tension spring (1) / the hook thread tension has been readjusted.

2. To reduce the hook thread tension, turn the adjusting screw (2) counterclockwise.

   ↳ The tension spring (1) / the hook thread tension has been readjusted.

4.2.2 Setting the needle thread tension

Setting the needle thread tension electronically (ETT)

The needle thread tension can only be set electronically by users with security level **2** in the `Setup` menu (📖 *p. 139*).

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. 203*).

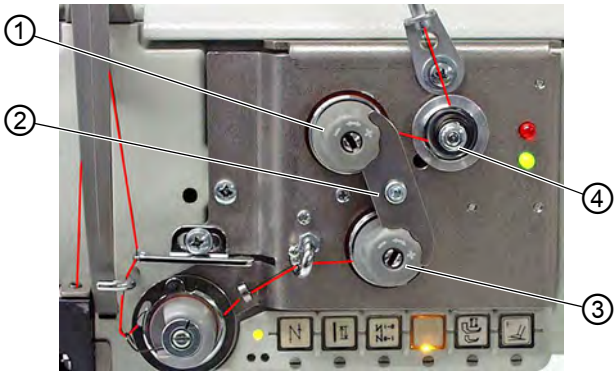


Important

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*).

Setting the needle thread tension mechanically

Fig. 29: Setting the needle thread tension mechanically



(1) - Main tensioner
(2) - Blocking element
(3) - Main tensioner
(4) - Pre-tensioner

Set the needle thread tension in accordance with the preset values of the seat cover manufacturer. The interlacing should be in the middle of the sewing material.

Information
The pre-tensioner (4) has been set.

To set the needle thread tension mechanically:

1. Loosen the blocking element (2).
2. Set main tensioners (1) and (3).
   - Increase the needle thread tension: Turn clockwise.
   - Reduce the needle thread tension: Turn counterclockwise.
3. Assemble the blocking element (2) again.

4.3 Setting the needle thread regulator

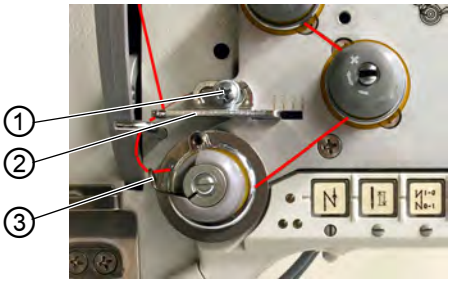
WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only set the needle thread regulator with the machine switched off.

Fig. 30: Setting the needle thread regulator



(1) - Screw
(2) - Needle thread regulator
(3) - Thread tension spring

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.

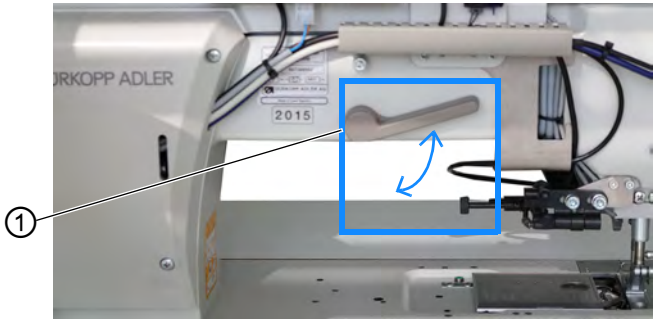
To set the needle thread regulator (2):

1. Loosen the screw (1).
2. Change the position of the needle thread regulator (2):
   - for a larger remaining thread quantity: Needle thread regulator to the left
   - for a smaller remaining thread quantity: Needle thread regulator to the right
3. Tighten the screw (1).

Information
If requiring the largest possible thread quantity, you need to pull the thread tension spring (3) approx. 0.5 mm up and out of its lower end position. This occurs when the needle thread loop matches the maximum hook diameter.

4.4 Locking the sewing foot in top dead center

Fig. 31: 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 canceled.

Information
The sewing foot can also be lifted pneumatically using the pedal (📖 *p. 69*). The lever (1) will swivel down automatically during this process.

4.5 Setting the sewing foot stroke

Fig. 32: Setting the sewing foot stroke



(1) - Knee button

The stroke can be set to 8 different levels (0-7).

To set the stroke:

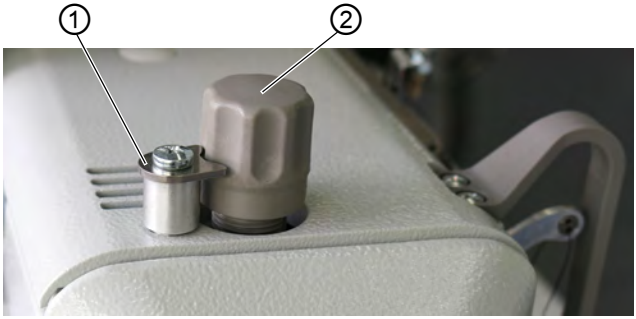
1. Set the stroke of the sewing foot in the seam record set (📖 *p. 108*).
2. To switch on the maximum stroke while sewing in free seam sections, press the knee button (1) (📖 *p. 59*).

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 Setting the sewing foot pressure

Fig. 33: Setting the sewing foot pressure



(1) - Blocking element *(2) - Rotary knob*

Set the desired sewing foot pressure using the rotary knob (3):

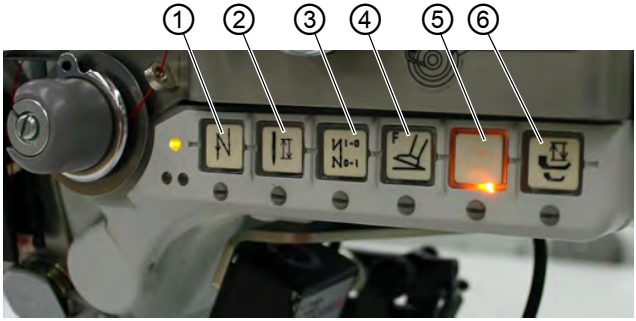
1. Use a Phillips head screwdriver to loosen the blocking element (1).
2. Set the sewing foot pressure.
   - To increase the sewing foot pressure:
     Turn the rotary knob (2) clockwise
   - To reduce the sewing foot pressure:
     Turn the rotary knob (2) counterclockwise
3. Use a Phillips head screwdriver to assemble the blocking element (1) again.

4.7 Setting the stitch length

Users with security level **2** can set different stitch lengths for every seam section (📖 *p. 105*).

4.8 Buttons on the machine arm

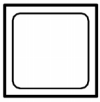
Fig. 34: Buttons on the machine arm



(1) - Button 1
(2) - Button 2
(3) - Button 3
(4) - Button 4
(5) - Button 5
(6) - Button 6

Buttons on the machine arm

Button	Function
1	Manual sewing in reverse. The machine sews in reverse while the button is pressed.
2	Position the needle in top / bottom dead center during sewing in free seam sections. This button will be locked in a documented seam section.
3	Call up start or end bartack or bartack suppression. If start and end bartack are generally switched on, a press on the button will switch off the next bartack. If start and end bartack are generally switched off, a press on the button will switch on the next bartack.

Button	Function
4 	Forced abort of the tearing seam
5 	No function assigned
6 	Quick stroke adjustment

4.8.1 Switching the function of a button on and off

To switch the function of a button on:

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

↳ The button lights up, and the function is switched on.

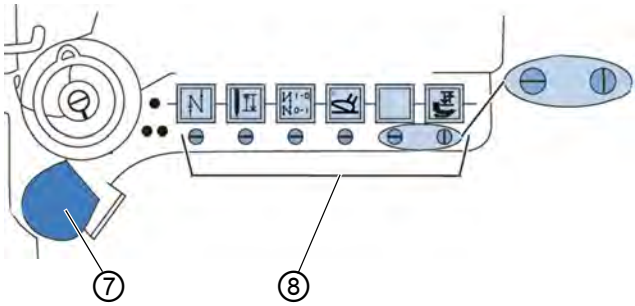
To switch the function of a button off:

1. Press the button whose function is switched on.

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

4.8.2 Assigning a function to the favorite button

Fig. 35: Assigning a function to the favorite button



(7) - Favorite button *(8) - Screw*

You can assign any function of the buttons (1)-(6) to the favorite button (7).

Information
Assign the function to the favorite button (7) that you require most commonly. This feature is the quickest way to switch this function on and off during sewing.

If the slot of a screw (8) is in the vertical position, the favorite button (7) has been assigned the desired function.

If the slot of a screw (8) is in the horizontal position, the favorite button (7) has not been assigned the desired function.

Only one function at a time can be assigned to the favorite button (7). Only one of the screws (8) may be in the vertical position.

All screws must be turned back to their original horizontal position before a new function can be assigned.

To assign a function to the favorite button:

1. Turn all screws (8) to their original position so that the slots are horizontal.

2. Turn the screw (8) under the button whose function you wish to assign to the favorite button (7) such that its slot is in the vertical position.

↳ You can now activate the function using the button (1)-(6) as well as using the favorite button (7).

4.9 LEDs on the machine

4.9.1 LEDs on the machine arm

Fig. 36: LEDs on the machine arm



(1) - LED *(2) - LED (remaining thread monitor)*

LED	Meaning
1	If on, the LED indicates that the machine is not de-energized / connected to the mains grid.
2	If the right LED is on, the remaining thread monitor signals that the bobbin in the hook is nearly empty.

4.9.2 LEDs on the tensioning plate

Fig. 37: LEDs on the tensioning plate



(1) - Green LED *(2) - Red LED*

LED	Meaning
Green LED (1)	If the green LED (1) is on, the machine is sewing a regular seam rather than a tearing seam.
Red LED (2)	If the red LED (2) is on, the machine is sewing a tearing seam.

4.10 Remaining thread monitor

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Only change the hook bobbin with the machine switched off.

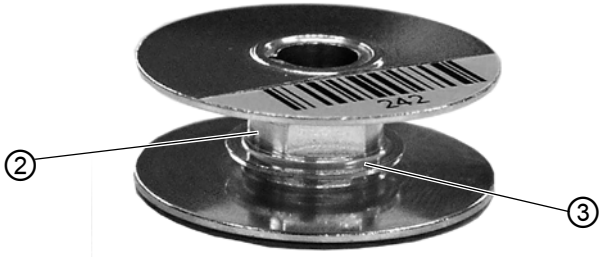
Remaining thread monitor during use

Fig. 38: Remaining thread monitor during use (1)



(1) - Remaining thread monitor

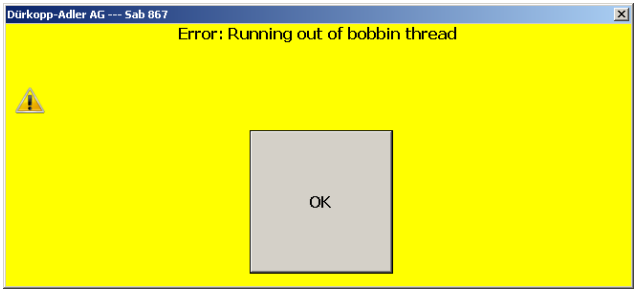
Fig. 39: Remaining thread monitor during use (2)



(2) - Flat *(3) - Supply groove*

The remaining thread monitor (1) monitors the hook thread quantity left on the bobbin inside the hook. If the light beam from the light barrier is reflected by the surface (2) on the bobbin core during sewing, a message will be displayed on the control panel. This message indicates that only a small quantity of hook thread is left on the bobbin.
The user can complete the seam and change the bobbin (📖 *p. 37*).

Fig. 40: Remaining thread monitor during use (3)



Process as follows when the remaining thread monitor (1) signals that the hook thread is coming to an end:

1. Tap **OK** to confirm the message on the control panel.
2. Release the pedal before pressing it forward again.
3. Complete the seam you have started.

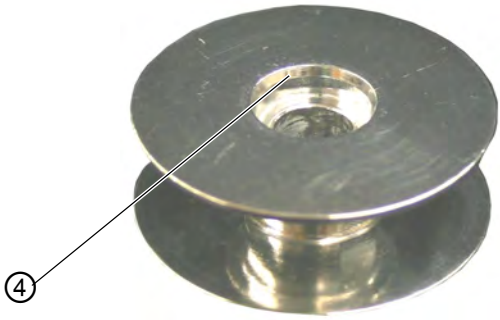
↳ The amount of thread in the supply groove (3) of the bobbin is usually sufficient.

4. Press the pedal to position **-2** at the seam end (📖 *p. 69*).

↳ The thread is cut.

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

Fig. 41: Remaining thread monitor during use (4)



(4) - Milling groove

Important

Insert the bobbin so that the milling groove (4) is pointing down.

6. Change the bobbin (📖 *p. 37*).
7. Use **Sew** on the control panel to re-activate sewing mode.

↳ You can start a new seam.

Important

If the empty bobbin has not been replaced with a full one, the control panel will display the error message again when you start the next seam.

8. Wind on the hook thread, (📖 *p. 41*).

Cleaning the remaining thread monitor

WARNING



Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Remove any lint from the area around the bobbin case and the light barrier.

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

Even the slightest remnants of fabric or yarn on the sensors of the remaining thread monitor may cause the sensor to no longer function properly. To ensure fault-free operation, the sensor of the remaining thread monitor must be cleaned with compressed air at least once a day (📖 *p. 238*).

To clean the remaining thread monitor:

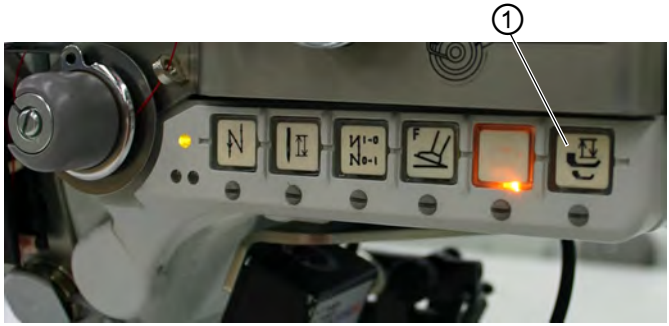


1. Switch off the machine.
2. Clean the lenses of the light barriers using compressed air.

↳ You can now switch the machine back on.

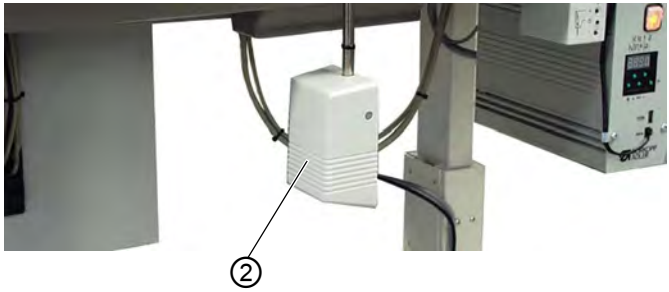
4.11 Electropneumatic quick stroke adjustment

Fig. 42: Electropneumatic quick stroke adjustment (1)



(1) - Button

Fig. 43: Electropneumatic quick stroke adjustment (2)



(2) - Knee button

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.

The sewing foot stroke can be activated with a press of the button (1) and the knee button (2) (🕮 *p. 47* and 🕮 *p. 59*).

4.11.1 Setting the function of the knee button

Fig. 44: Setting the function of the knee button



(1) - Toggle switch

The electropneumatic quick stroke adjustment can be used to preset the sewing foot stroke for each free seam section (📖 *p. 108*).

Setting the function of the knee button

Position	Function	Description
0	Push-to-run operation	• To activate the sewing foot stroke: Press the knee button once. To deactivate the sewing foot stroke: Press the knee button one more time.
1	Hold-to-run operation	The sewing foot stroke remains active for as long as you hold down the knee button.

To set the function of the knee button:

1. Set the toggle switch (1) to the desired function:
   - Push-to-run mode: Set the toggle switch (1) to position **0**.
   - Hold-to-run mode: Set the toggle switch (1) to position **1**.

4.11.2 Switching on maximum stroke during sewing

Fig. 45: Switching on maximum stroke during sewing



(1) - Button

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

1. Press the knee button.

   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).

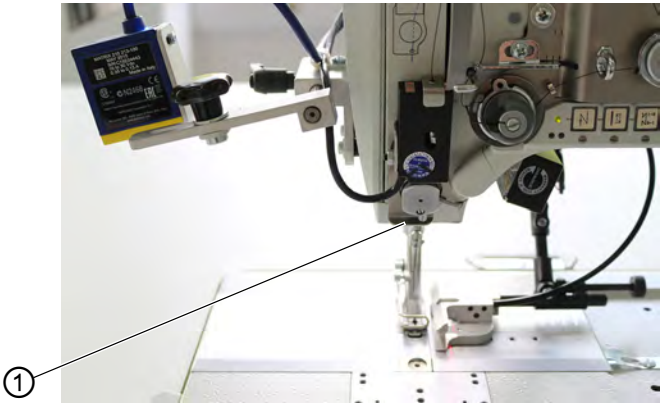
Or

1. Press the button (1).

4.12 Switching on and off the sewing lamp

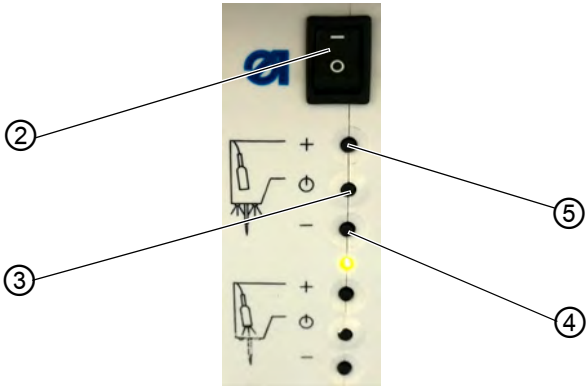
The sewing lamp illuminates the sewing area and can be switched on and off.

Fig. 46: Switching on and off the sewing lamp (1)



(1) - Sewing lamp

Fig. 47: Switching on and off the sewing lamp (2)



(2) - Switch
(3) - Button
(4) - Button
(5) - Button

To switch on the sewing lamp (1):

1. Set the switch (2) to position **1**.
2. Press the button (3).

↳ The sewing lamp (1) is lit.

3. Use button (4) or button (5) to set the brightness.

To switch off the sewing lamp (1):

1. Set the switch (2) to position **0**.

↳ The sewing lamp (1) is no longer lit.

Information
It is possible to connect and operate a second LED lamp on the sewing lamp transformer.
This second sewing lamp is, however, not included in the scope of delivery.

4.13 Additional equipment

The 550-867 machine can be used in combination with different additional equipment.

4.13.1 End label scanner

Fig. 48: End label scanner (1)



(1) - End label scanner

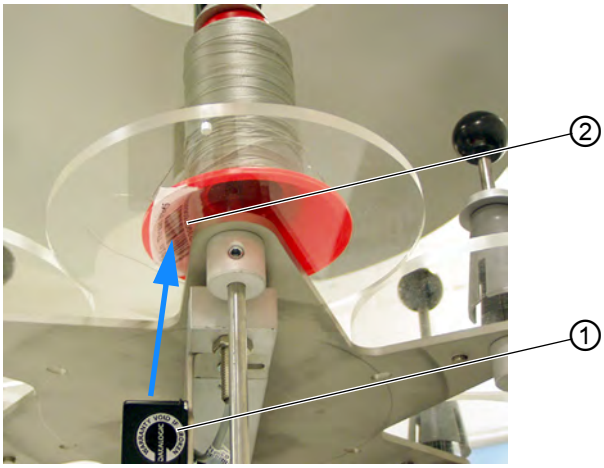
An optional end label scanner (1) can be attached to the machine head. This scanner is used to check if the correct end label has been sewn on.

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. 49: Barcode scanner for needle and hook thread



(1) - Barcode scanner for needle and hook thread

(2) - Needle/hook thread barcode

The barcodes of 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

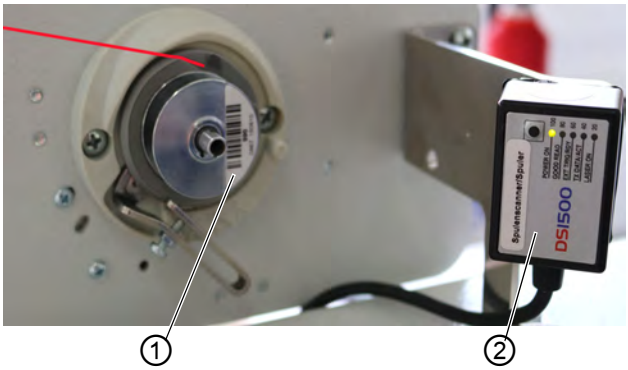
If this barcode scanner is installed, the barcodes of needle / hook thread will be scanned as soon as a sewing process is started / a bobbin is wound.

Information

The barcodes under the needle and hook thread reels must be aligned so that they can be captured completely by the barcode scanners (📖 *p. 28*).

4.13.3 Bobbin identification

Fig. 50: Bobbin identification (1)



(1) - Bobbin on the winder *(2) - Barcode scanner*

Fig. 51: Bobbin identification (2)



(3) - Barcode scanner

Fig. 52: Bobbin identification (3)



(4) - Bobbin in the hook

The bobbin identification is composed of scanners (2) and (3), which capture the barcode of 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 the top

It is possible to cool the needle from the top using cold air. The cold air is fed through a small tube at the transport 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 the bottom

It is possible to cool the needle from the bottom 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 the top depending on the strength and thickness of the sewing material.

4.14 Sewing

WARNING



Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Guide the sewing material in such a way that your hands will 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 in the sewing area can cause damage or defects on the machine.

Immediately remove any contamination during the sewing process.

Clean the machine daily (📖 *p. 238*).

The sewing process comprises the following parts:

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

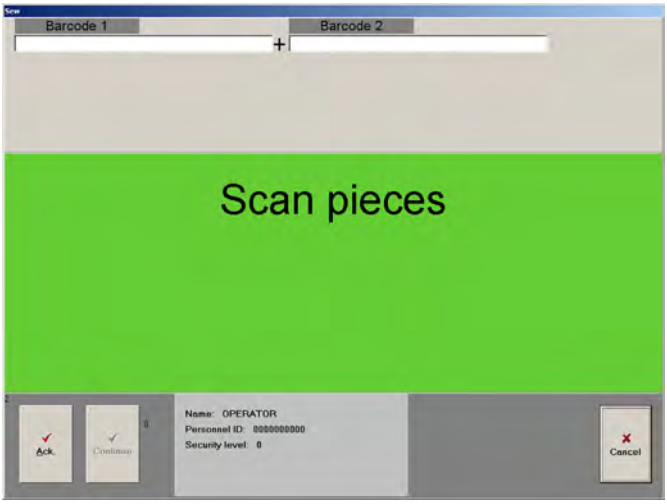
To start the sewing process:



1. Log in (📖 *p. 88*).
2. Tap the **Sew** button on the main screen.

↳ The display switches to:

Fig. 53: Sewing (1)



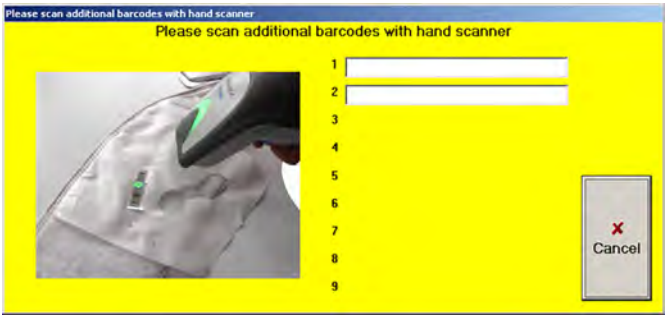
3. Scan the barcodes parts primary of the sewing material.

   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 **Multi barcode with batch mode** is activated (📖 *p. 179*), the display switches to the following after the scanning of the primary piece barcode:

Fig. 54: Sewing (2)



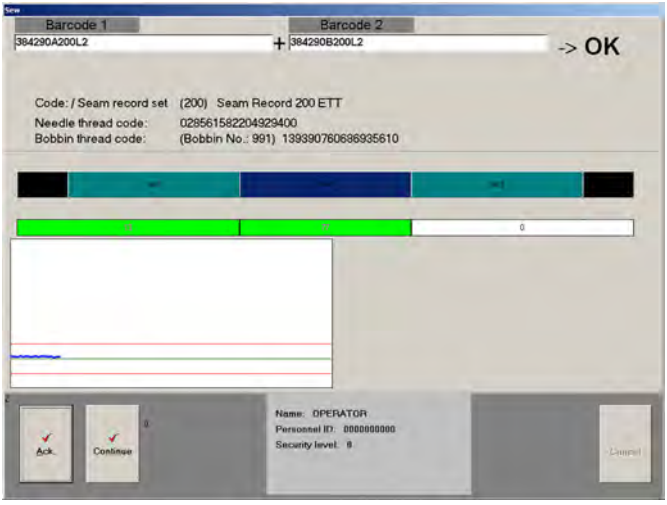
4. Scan 2 multiple barcodes.

   You can predefine up to 9 multiple barcodes (📖 *p. 179*).
   In this seam record set, 2 multiple barcodes will be requested at the beginning.

5. Sew seam sections (📖 *p. 69*).

↳ The display switches to:

Fig. 55: 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. 71*).
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. 272*).

4.14.1 Pressing the pedal

WARNING

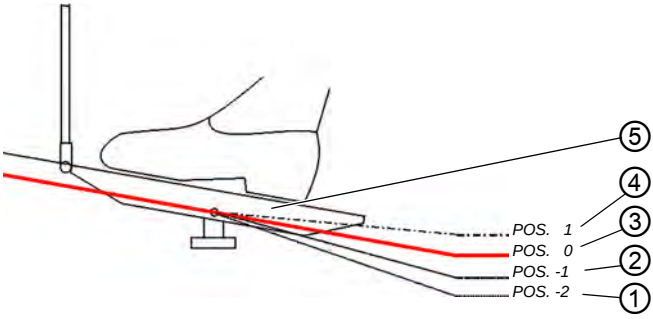


Risk of injury from moving parts!

Crushing injuries may be sustained while lowering the sewing foot.

Do NOT put your hands under the lifted sewing foot.

Fig. 56: 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 begin a seam:



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

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

When 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 end the seam:



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

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

Sew the end label ONLY into a free seam section.

Since a production step that is 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 (📖 *p. 136*).

In addition, every tearing seam is assigned an end label that includes a barcode. This barcode makes it possible 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 (optional, 📖 *p. 62*) to scan the end label barcode.

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

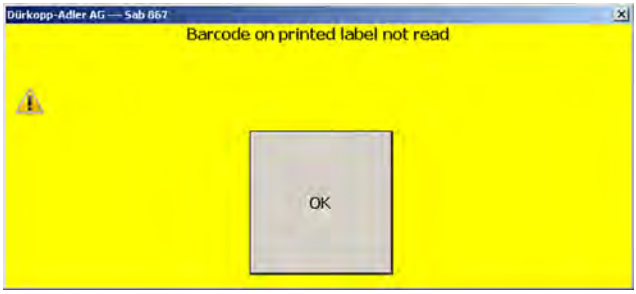
2. Confirm with **OK**.
3. Sew the end label into a free seam section.

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

Faulty sewing process

If the sewing label is not scanned or failed to be detected by the end label scanner, the following reminder will be displayed after a preset number of stitches in the last seam section (📖 *p. 115*):

Fig. 57: Sewing in the end label (1)



1. Confirm with **OK**.
2. 2 options:
   - Scan the end label barcode, sew 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.

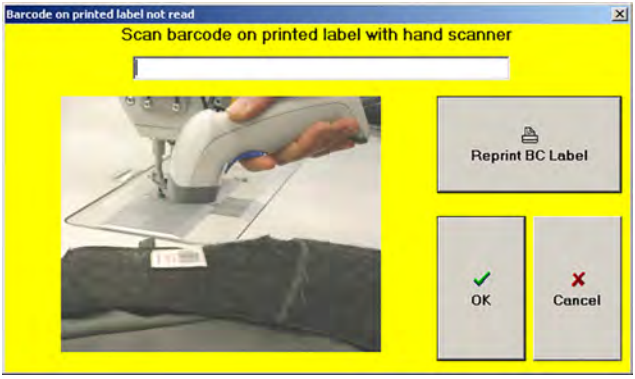
↳ An error message is displayed.

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** (📖 *p. 88*).

↳ The display switches to:

Fig. 58: Sewing in the end label (2)



4. If the original end label can no longer be scanned, tap 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. 127*).

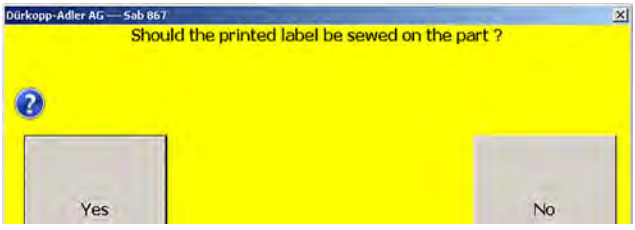
5. Use the hand scanner to scan the end label barcode.

↳ 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. 59: Sewing in the end label (3)



7. 2 options:
   - Sew in the end label and complete the sewing process successfully: Tap the **YES** button
   - Interrupt the sewing process: Tap 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** will cause the display to switch to:

Fig. 60: 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 Procedure in the event of a power supply disruption

NOTICE

Property damage may occur!

Loss of data if power supply is interrupted abruptly.

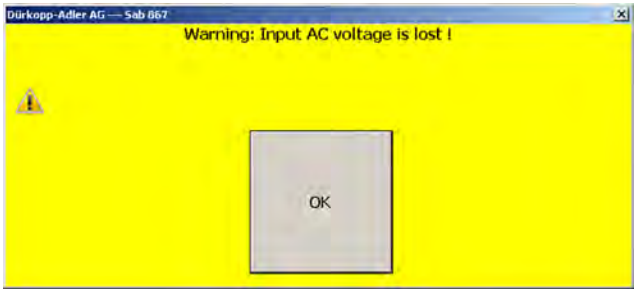
Ensure that the UPS is always on while working at the machine.

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. 61: Procedure in the event of a power supply disruption



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.

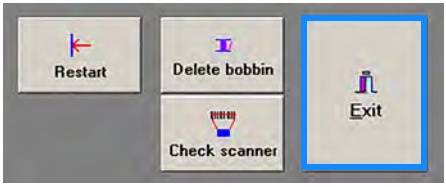
Information
The power consumption in standby mode is lower than during sewing.

2. If the power supply remains interrupted, switch the machine off (📖 *p. 76*).

Important
To ensure that the UPS remains operational, check the condition of the battery on a regular basis (📖 *p. 166*).

4.16 Switching off the machine

Fig. 62: Switching off the machine (1)

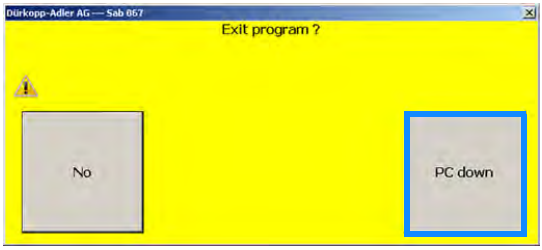


To switch off the machine:

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

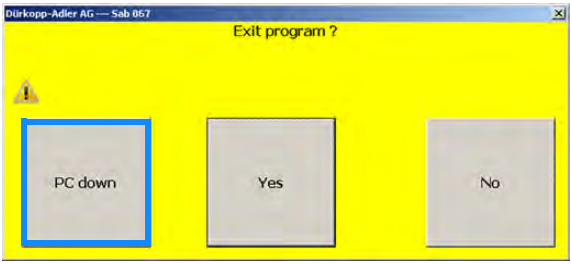
↳ If a user with security level **0** or **1** is logged in, the display will switch to:

Fig. 63: Switching off the machine (2)



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

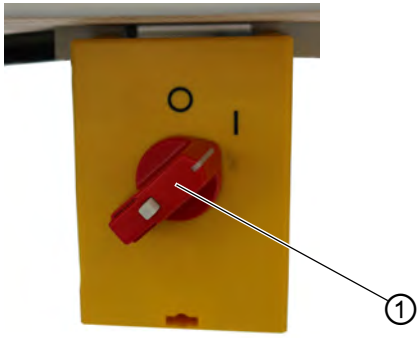
Fig. 64: Switching off the machine (3)



2. Tap the **PC down** button.

   The control panel shuts down.

Fig. 65: 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.

Fig. 66: Switching off the machine (5)



(2) - Button

4. Press the button (2) on the UPS (📖 *p. 166*).

↳ The green light **On Line** goes out, indicating that the UPS is switched off.

5 Programming

The control panel is mainly operated 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. 79*).

5.1 Structure of the software

This chapter explains the structure of the software:

- Security levels (**0**-**2**) (📖 *p. 79*)
- Start screen (📖 *p. 82*)
- Register screen (📖 *p. 85*)
- Main screen (📖 *p. 83*)
- Recurring elements (📖 *p. 86*)
- Input window (📖 *p. 87*)

Information
Not all functions are available to all users (📖 *p. 79*).

5.1.1 Security levels (0-2)

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

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

To avoid confusion, all groups of people working with the machine are referred to as user in these instructions.

Security levels

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

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

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 at the factory:

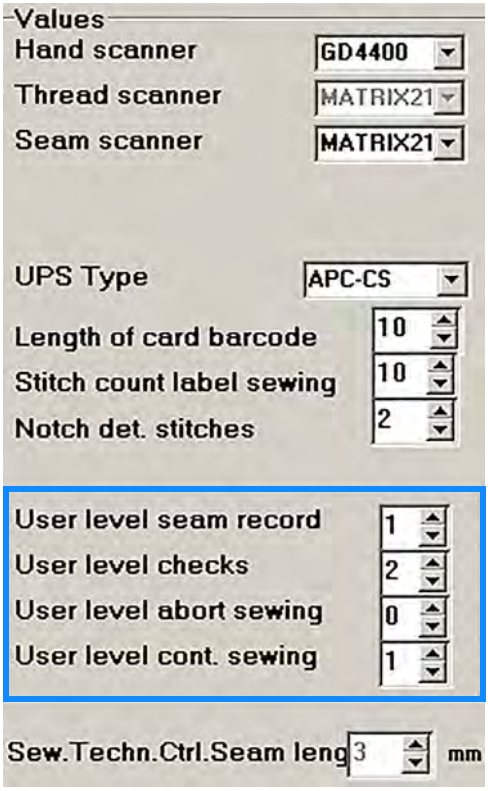
Activity	Security level
User level seam record	1
User level checks	2
User level abort sewing	0
User level cont. sewing	1

To adjust the security levels:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).

↳ The display switches to:

Fig. 67: 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

Fig. 68: Start screen



(1) - Start screen *(2) - Scan prompt*

The start screen (1) appears directly after the machine has been switched on. On this screen, the user must first enter the number of the bobbin housed inside the hook (📖 *p. 23*).

As soon as the bobbin number has been entered / the bobbin barcode has been scanned (📖 *p. 64*) the display `Hand scanner` will disappear.

The register screen gives the user 2 options:

- Log in (📖 *p. 88*)
- Shut down PC and machine (📖 *p. 76*)

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. 69: Main screen (1)



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

Fig. 70: Main screen (2)



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

Fig. 71: 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**
Sew	Begin sewing 🕮 *p. 66*	**0**, **1** and **2**
Seam record sets	Change 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. 208*	**0**, **1** and **2**
Delete bobbin	Delete bobbin in the system 🕮 *p. 194*	**0**, **1** and **2**
Exit	• Exit program 🕮 *p. 209* • Shut down PC 🕮 *p. 76*	**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. 72: Register screen (1)



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

Fig. 73: Register screen (2)



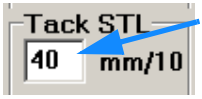
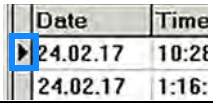
To open the register screen:

1. Tap 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 value will be deleted completely. A new value can be entered.
	**Abort/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 tap on these white input fields opens the input field. After being entered, the new value appears in the white input field.
	The arrow in the first column of a list indicates which line / file has been selected.

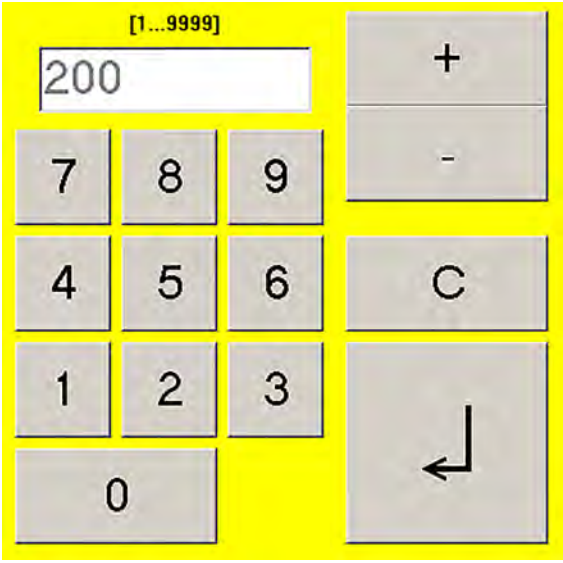
5.1.6 Input window

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

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

The following is an example of such an input window:

Fig. 74: Input window



5.2 Logging into the system

There are 2 ways to log into the system:

- via hand scanner and access barcode (📖 *p. 88*)
- via software (📖 *p. 89*)

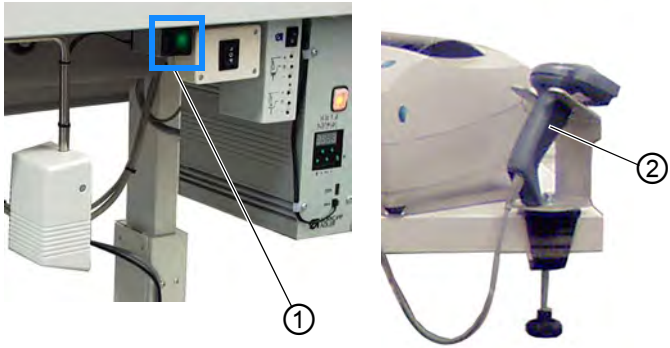
Information

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 not 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. 75: Logging in with the hand scanner



(1) - Access button *(2) - Hand scanner*

To log in using the hand scanner:

1. Press the access button (1) under the tabletop.
   ↳ The lamp built into the access button (1) lights up green.
2. Use the hand scanner (2) to scan the user's access barcode.
   ↳ The user has been logged in.

Information
If too much time passes between the pressing of the access button (1) and the scanning of the access barcode, the green light will go out again. If this happens, press the access button (1) again.

5.2.2 Logging in via software

Fig. 76: Logging in via software (1)



To log in manually via software:

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

↳ The display switches to the register screen:

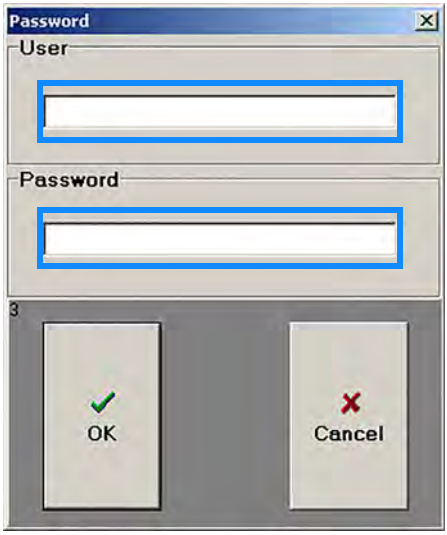
Fig. 77: Logging on via software (2)



2. Tap the **Log in** button.

↳ The display switches to:

Fig. 78: Logging in via software (3)



3. Tap the **User** input field.
↳ An input field appears.
4. Enter the desired name.
5. Confirm with **OK**.
6. Tap the **Password** input field.
↳ An input field appears.
7. Enter the desired password.
8. Confirm with **OK**.
↳ You are now logged in.

5.3 Managing users

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

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

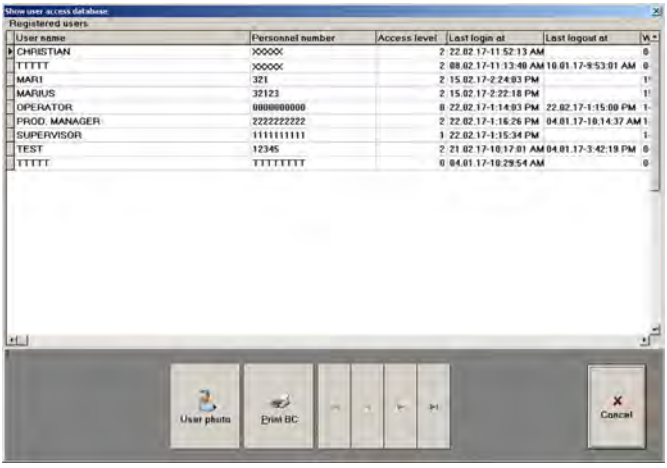
5.3.1 Displaying users

To display all created users:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the register screen (📖 *p. 85*).
3. Tap the **Show users** button.

↳ The display switches to:

Fig. 79: Displaying users



This screen shows all created users.

5.3.2 Storing a user image

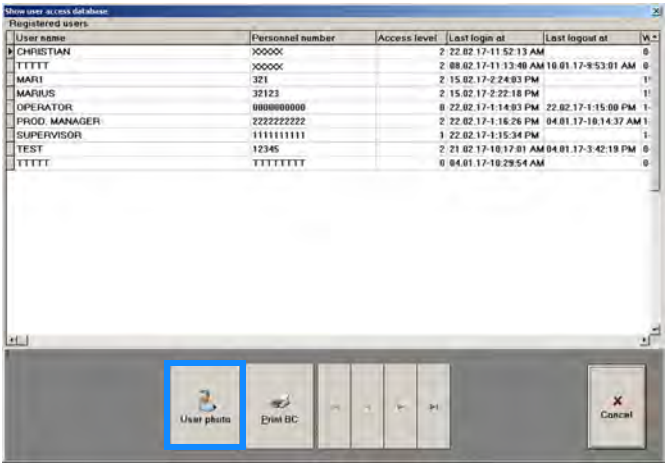
Information
User images are stored in the `SABSoft/SystemDB` directory. The images must be in JPEG format and have a size of 150 KB or less.

To store an image for a created user:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the register screen (📖 *p. 85*).
3. Tap the **Show users** button.

↳ The display switches to:

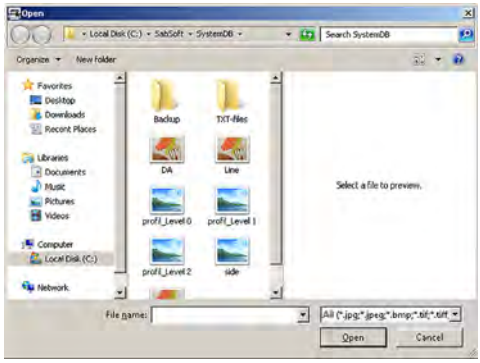
Fig. 80: Storing a user image (1)



4. Tap the **User photo** button.

↳ The display switches to:

Fig. 81: Storing a user image (2)



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

↳ The user image is loaded.

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

5.3.3 Creating a new user

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

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. 88*).
2. Open the register screen (📖 *p. 85*).
3. Tap the **New** button.

↳ The display switches to:

Fig. 82: Creating a new user



4. Enter **User name**, **Personnel ID** and **Password** into the input fields of the same name.
5. To define the desired security level for the new user, tap buttons **0**, **1** or **2**.
   - The checkmark on the button indicates which security level has been selected (in this case, **0**).
6. To store a user image, tap the **User photo** button.

Information
The user photo can also be stored at a later time (📖 *p. 92*).

---

7. Tap 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. 88*).
   - Once the 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 adopted.
10. Tap the **Save** button.
    - The new user has been created.

5.3.4 Deleting users

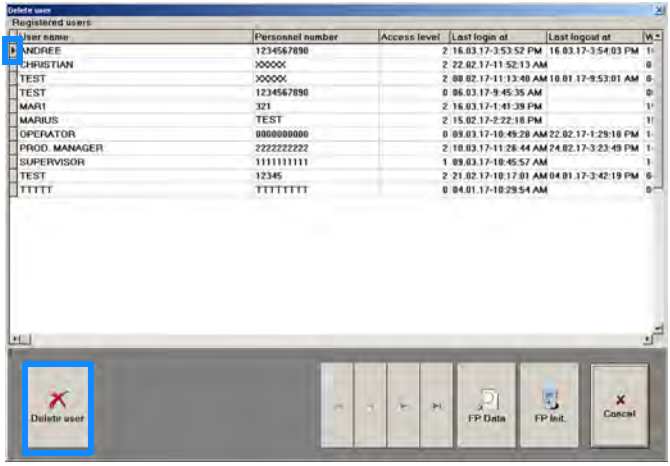
Only users with security level **2** can delete users.

To delete a user:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the register screen (🕮 *p. 85*).
3. Tap the **Delete** button.

↳ The display switches to:

Fig. 83: Deleting users (1)



4. Select the user (in this example, product manager *ANDREE*).

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

5. Tap the **Delete user** button.

↳ The display switches to:

Fig. 84: Deleting users (2)



6. Confirm with **Yes**.

↳ The user *ANDREE* has been deleted.

5.4 Seam record sets

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

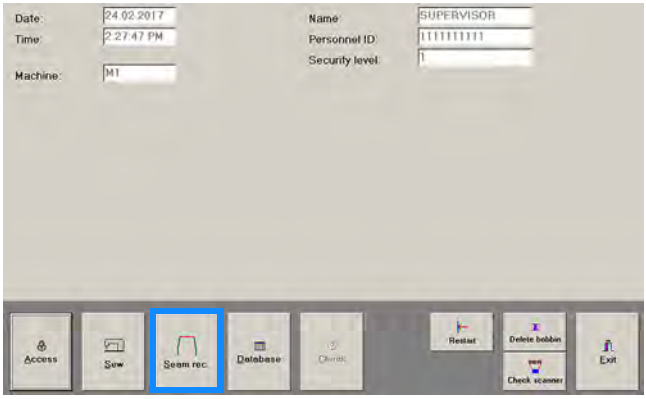
Button	Function
New seam record set	Create a new seam record set 📖 *p. 98*
Edit seam parameter record	Edit seam record sets 📖 *p. 100*
Copy seam record	Copy seam record sets 📖 *p. 118*
Delete seam record sets	Delete seam record sets 📖 *p. 120*
Change thread in seam records	Change / re-define the threads to be used for several seam record sets 📖 *p. 121*

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. 88*).

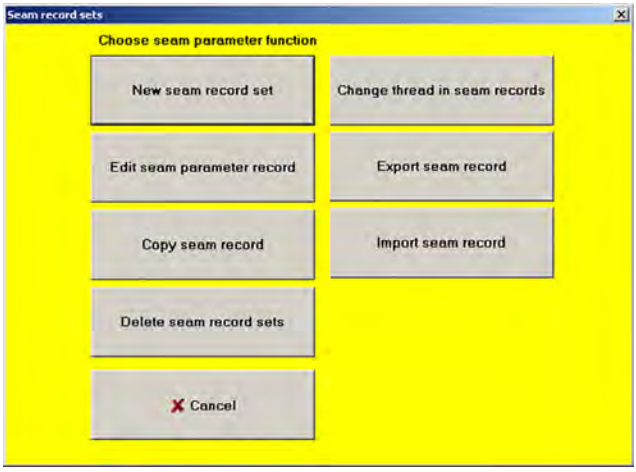
Fig. 85: Opening the Seam record sets display (1)



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

↳ The display switches to:

Fig. 86: 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

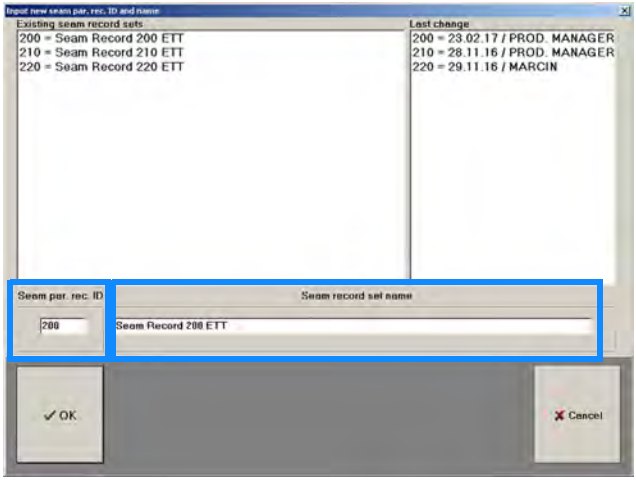
The ID of the new seam record set must show up in the barcodes parts primary of the sewing material. Otherwise, it will not be possible to assign the correct seam record set automatically by scanning the barcodes parts primary at the beginning of the sewing process.

To create a new seam record set:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Seam record sets` display (📖 *p. 97*).
3. Tap the **New seam record set** button.

↳ The display switches to:

Fig. 87: Creating a new seam record set (1)



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

↳ An input field appears.

5. Enter a new seam record set ID.
6. Confirm with ↵.

7. Tap the **Seam record set name** input field.

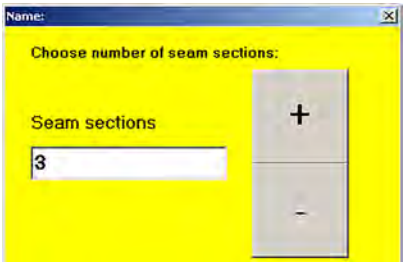
↳ An input field appears.

8. Enter a new seam record set name.

9. Confirm with ↵.

↳ The display switches to:

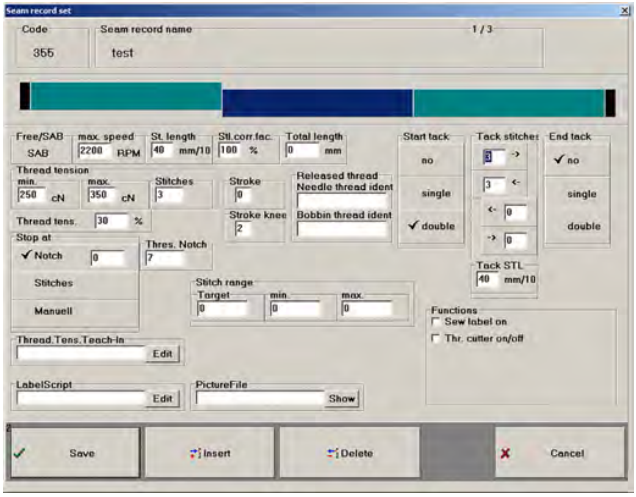
Fig. 88: Creating a new seam record set (2)



10. Add a seam section: tap **+**.
11. Delete a seam section: Tap **-**.
12. Confirm with **OK**.

↳ The display switches to (🕮 *p. 100*):

Fig. 89: Creating a new seam record set (3)



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 a seam section is free or documented (SAB) 📖 *p. 104*
max. speed	Maximum speed in the current seam section 📖 *p. 105*
Stitch length	Stitch length in the current seam section 📖 *p. 105*
Stl. corr. fac.	Stitch length correction depending on the material
Total Length	Distance 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. 106*
Thread tens.	Current feed value in % (for ETT only) 📖 *p. 106*
Seam section switch via	notch detection, stitch counting or manual operation (pedal set to position -2) 📖 *p. 109*
Thread. Tens.Teach-In	Selection of a teach-in file (for ETT only) 📖 *p. 112*
LabelScript	Selection of a label script file 📖 *p. 112*
Stroke	Stroke of the alternating sewing feet 📖 *p. 108*
Stroke knee	Stroke upon activation of the knee button (quick stroke adjustment) 📖 *p. 108*

Input field	Function
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. 199*
Text printed on end label	Define the text that will be printed on the end label. This option is only available in documented seam sections. 📖 *p. 180*
Start tack	Select if a single or double start bartack or no start bartack will be created for the current seam section 📖 *p. 113* et sqq.
Tack stitches	Number of tack stitches (forward/backward) 📖 *p. 113*
End tack	Select if a single or double end bartack or no end bartack will be created for the current seam section 📖 *p. 113* et sqq.
Tack STL	Stitch length of the start and end bartack 📖 *p. 114*
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 end label is supposed to be sewn in at this seam section. 📖 *p. 115*
Thr. cutter on/off	The thread cutter cuts the thread at the end of the current seam section 📖 *p. 115*
Foot lift on/off	Manual sewing foot lift at a sewing stop in the seam possible/not possible 📖 *p. 116*

The factory setting defines the same 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. 104*).

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

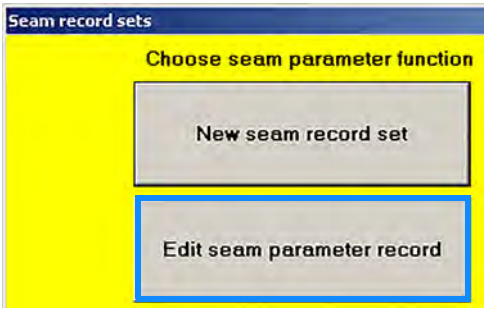
Opening the *Seam record set* display

To open the *Seam record set* display:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the *Seam record set* display (📖 *p. 97*).

↳ The display switches to:

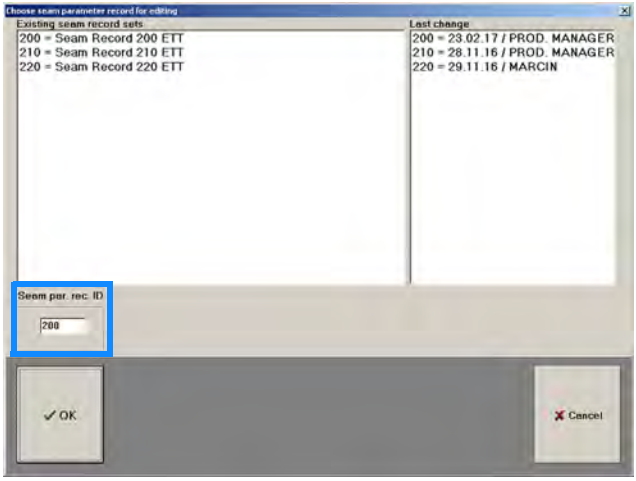
Fig. 90: Opening the Seam record set display (1)



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

↳ The display switches to:

Fig. 91: Opening the Seam record set display (2)



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

↳ An input field appears.

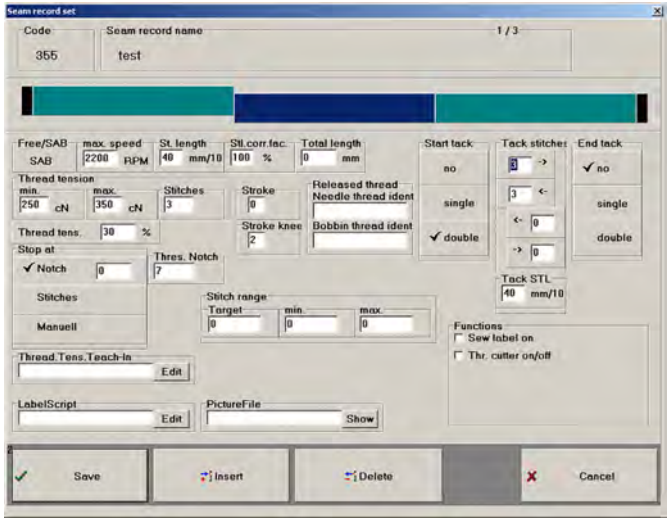
5. Enter the ID of the desired seam record set.
6. Confirm with **OK**.

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

7. Confirm with **OK**.

↳ The following display appears:

Fig. 92: 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. 113*).

To select a seam section:

1. Open the `Seam record set` display (📖 *p. 102*).

Fig. 93: Selecting a seam section



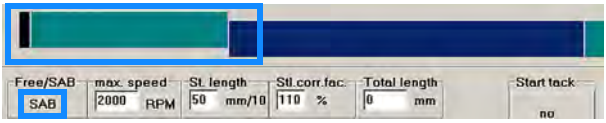
2. Tap the corresponding colored bar to select the seam section.

Defining a free seam section

To define a free seam section:

1. Open the `Seam record set` display (📖 *p. 102*).
2. Select the documented seam section you wish to convert into a free seam section (📖 *p. 104*).

Fig. 94: Defining a free seam section



3. Tap the **SAB** button.

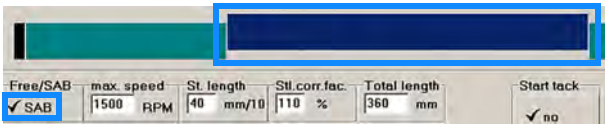
↳ The checkmark on the **SAB** button turns off, and the seam section is no longer displayed as a documented seam section.

Defining a documented seam section

To define a documented seam section:

1. Open the `Seam record set` display (📖 *p. 102*).
2. Select the free seam section you wish to convert into a documented seam section (📖 *p. 104*).
3. Tap the **SAB** button.

Fig. 95: Defining a documented seam section



↳ A checkmark appears 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. 102*).
2. Tap the **max. speed** input field.

↳ An input field appears.

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

Setting the stitch length

To set the desired stitch length:

1. Open the `Seam record set` display (📖 *p. 102*).
2. Tap the **Stitch length** input field.

↳ An input field appears.

3. Enter the desired stitch length (mm/10).
4. Confirm with ↵.

Setting 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 set the stitch length correction factor:



1. Open the `Seam record set` display (📖 *p. 102*).
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. Tap the **Stl. corr. fac.** input field.
   ↳ An input field appears.
6. Enter the calculated stitch length correction factor.
7. Confirm with ↵.

Setting the thread tension

A thread tension tolerance range is defined for every 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.

To set the thread tension tolerance range:



1. Open the `Seam record set` display (📖 *p. 102*).
2. Tap the **Thread tension min.** input field.
   ↳ An input field appears.
3. Enter the desired lowest thread tension (cN).
4. Confirm with ↵.
5. Tap the **Thread tension max.** input field.
   ↳ An input field 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. 102*).
2. Tap 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**.

To display the stored values:

1. Open the *Seam record set* display (📖 *p. 102*).
2. Tap 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.

Setting the stroke

To set the desired stroke:

1. Open the *Seam record set* display (📖 *p. 102*).
2. Tap the **Stroke** input field.

↳ An input field appears.

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

Setting 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. 102*).
2. Tap the **Stroke knee** input field.

↳ An input field appears.

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

Information
The maximum stroke is 9 mm/level 7.

The switchable stroke can be used in push-to-run/hold-to-run mode (📖 *p. 59*).

Defining a seam section switch

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

Ways to detect a seam section switch	Function
Notch	When using visual detection, the machine will detect markings at the edge of the sewing material. The optimum size of a notch is 10 x 10 mm. A new seam section starts after each marking. **This setting is the recommended option.**
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. 102*).
2. Tap the **Notch** button.
   ↳ The checkmark confirms the selection.
3. Tap the **Notch** input field.
4. Enter the desired number of stitches for which notch detection will be deactivated.
5. Confirm with ↵.

To set the seam section switch via number of stitches:

1. Open the `Seam record set` display (📖 *p. 102*).
2. Tap the **Stitches** button.
   ↳ The checkmark confirms the selection.

3. Tap 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. 102*).
2. Tap 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. If is advisable to define the length of the documented seam section for a seam record set.

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. 102*).
2. Tap the **Total length** input field.

↳ An input field appears.

3. Enter the desired length (mm).

4. Confirm with ↵.

Defining the 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 threads 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. 102*).
2. Tap the **Released thread/needle thread ID** input field.

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

3. Enter the ID.
4. Confirm with ↵.

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

5. Enter the 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 a 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. 102*).
2. Tap the **Text for printed label** input field.

↳ An input field opens.

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

Information

This function 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. 212*).

Linking a teach-in file

A thread tension teach-in file is used to store all data necessary to set the tolerance range for the electronically regulated thread tension (for ETT only). These teach-in file is created (📖 *p. 203*) and 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. 102*).
2. Tap 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, tap 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. 175*) or using the Label Creator (📖 *p. 212*) 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. 102*).
2. Tap 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, tap 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.

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

To link an image to a seam record set:

1. Open the *Seam record set* display (📖 *p. 102*).
2. Tap 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. 102*).
2. Tap the **no** button below the heading *Start/end tack*.

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

Setting a single start/end bartack

To set a single start/end bartack:



1. Open the *Seam record set* display (📖 *p. 102*).
2. Tap the **single** button under 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. 102*).
2. Tap the **double** button under the heading *Start/end tack*.
3. Enter the desired number of stitches.

Setting the bartack stitch length

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



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

To set the desired bartack stitch length:



1. Open the *Seam record set* display (📖 *p. 102*).
2. Tap the input field **Tack STL** / **mm/10**.
   ↳ 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. This production number can be scanned at any time using the end label barcode, 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. 102*).
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 sewing section with a new seam.

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

To switch the FA on and off:



1. Open the *Seam record set* display (📖 *p. 102*).
2. Select the seam section for which the FC is supposed to be switched on or off.
3. Select or deselect **Thr. cutter on/off**.

↳ If the checkmark is set, the FA is switched on.

↳ If checkmark is not set, the FA 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 (📖 *p. 72*).

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 and off

When 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. 102*).
2. Switch the function **Foot lift on/off** or 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 sewing 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
You can only add free seam sections. Not until it has been added will you be able define if the new seam section is supposed to remain free or become documented (📖 *p. 104*).

To add additional seam sections:



1. Open the *Seam record set* display (📖 *p. 102*).
2. Select the seam section after which you wish to add the new seam section.
3. Tap the **Insert** button.

↳ The display switches to a confirmation.

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

It is possible delete any seam section.

To delete the selected seam section:



1. Open the *Seam record set* display (📖 *p. 102*).
2. Select the seam section you wish to delete.
3. Tap the **Delete** button.

↳ The display switches to a confirmation prompt.

4. Confirm with **OK**.

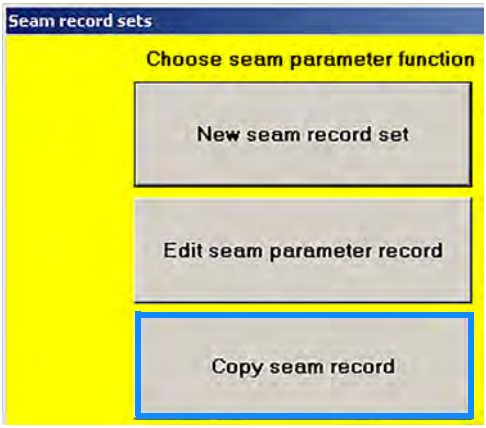
5.4.4 Copying a seam record set

To copy a seam record set:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Seam record sets` display (📖 *p. 97*).

↳ The display switches to:

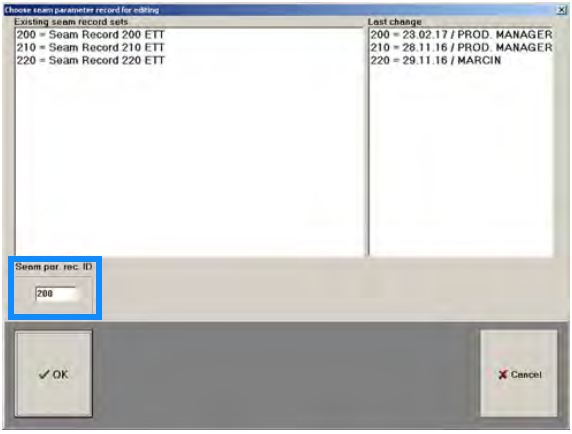
Fig. 96: Copying a seam record set (1)



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

↳ The display switches to:

Fig. 97: Copying a seam record set (2)



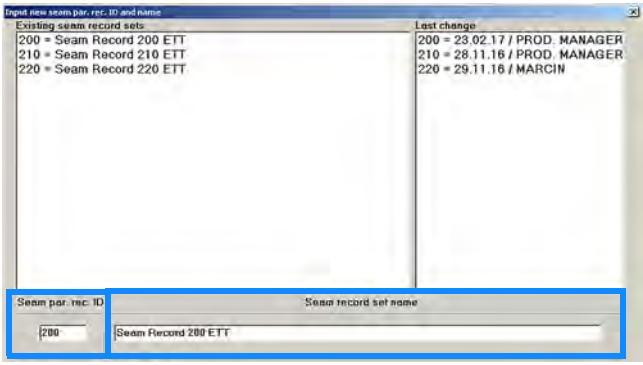
4. Tap the **Seam par. rec. ID** input field.

↳ An input field appears.

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

↳ The display switches to *Kennung und Name für neues Nahtbild angeben (Enter ID and name of new seam record set)*:

Fig. 98: Copying a seam record set (3)



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

↳ An input field appears.

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

↳ An input field 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**.

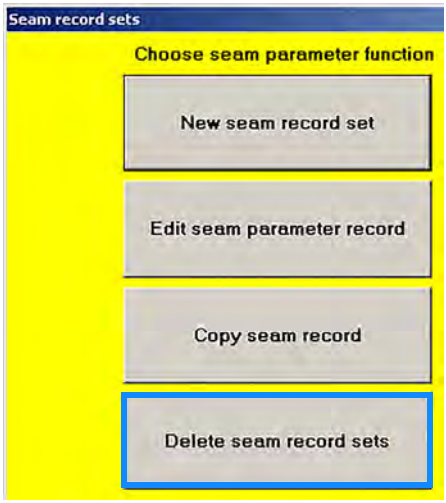
5.4.5 Deleting a seam record set

To delete a seam record set:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Seam record set` display (📖 *p. 97*).

↳ The display switches to:

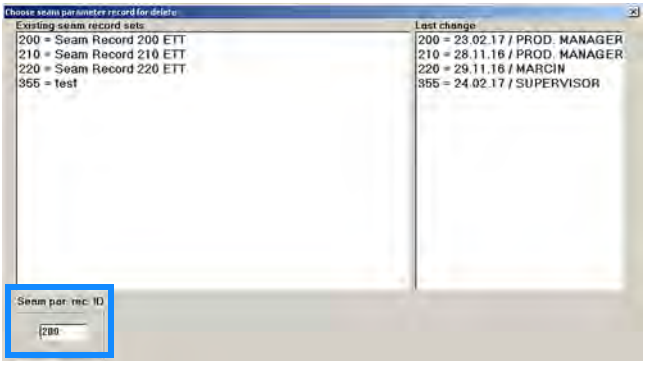
Fig. 99: Deleting a seam record set (1)



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

↳ The display switches to:

Fig. 100: Deleting a seam record set (2)



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

↳ An input field 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 in 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 set separately.

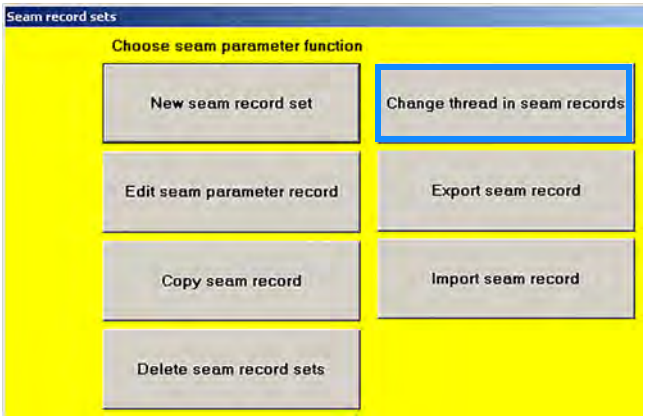
It is possible to change needle and hook threads.

To change a thread:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the *Seam record sets* display (📖 *p. 97*).

↳ The display switches to:

Fig. 101: Changing the thread (`Change thread in seam records`) (1)



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

↳ The display switches to:

Fig. 102: 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 field appears.

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

5.5 Database

All tearing seams are documented (📖 *p. 281*). These protocol files are stored in the protocol database. A new protocol database will be created automatically for every new day.

The **Database** button can be used to display, copy and print these protocol databases.

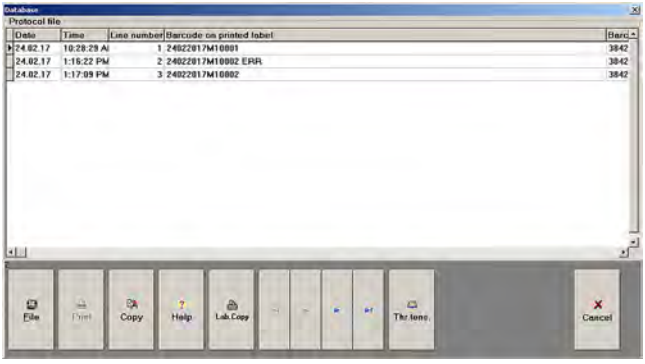
5.5.1 Opening the `Database` display

To open the `Database` display:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Tap the **Database** button on the main screen.

↳ The display switches to:

Fig. 103: Opening the database display



5.5.2 Opening a protocol database

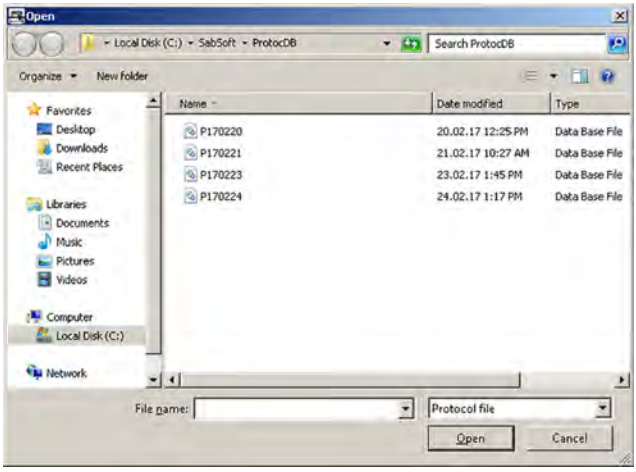
A new protocol database will be created for every new day. You can use the **File** button to open all existing protocol databases.

To open a protocol database:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Database` display (📖 *p. 123*).
3. Tap the **File** button.

↳ The display switches to:

Fig. 104: Opening a protocol database (1)



4. Select the desired protocol database.
5. Tap **Open** to confirm.

↳ The selected protocol database will be 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. 88*).
2. Open the `Database` display (📖 *p. 123*).
3. Select the desired protocol file.
4. Tap the **Print** button.

↳ This button cannot be tapped unless a protocol printer is 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 different storage locations.

Other storage locations may 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. 196*).

To copy a protocol file:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Database` display (📖 *p. 123*).
3. Select the desired protocol file.
4. Tap 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. 198*).

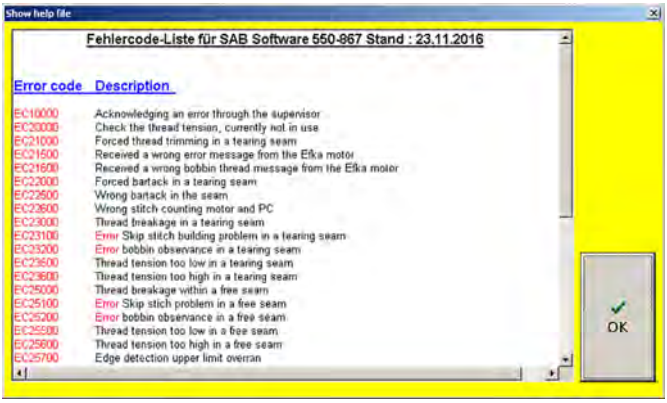
Important

As tearing seams are essential to safety, long-term storage of the associated protocol files is imperative. It is, therefore, advisable to regularly copy / store external backups of the entire protocol database.

5.5.5 Error codes (*Help*)

Assigned to the **Help** button is a list of error codes that the machine may display.

Fig. 105: Error codes (Help)



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

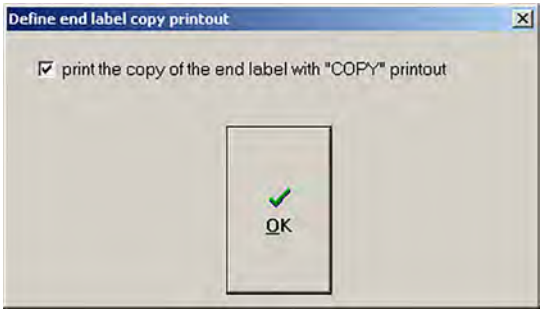
The protocol database can be used to print a copy of the end label sewn into every sewing material.

To create a copy of an end label:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the `Database` display (📖 *p. 123*).
3. Select the desired protocol file.
4. Tap the **Lab. Copy** button.

↳ The display switches to:

Fig. 106: 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 of these thread tension values is created for every sewing material.

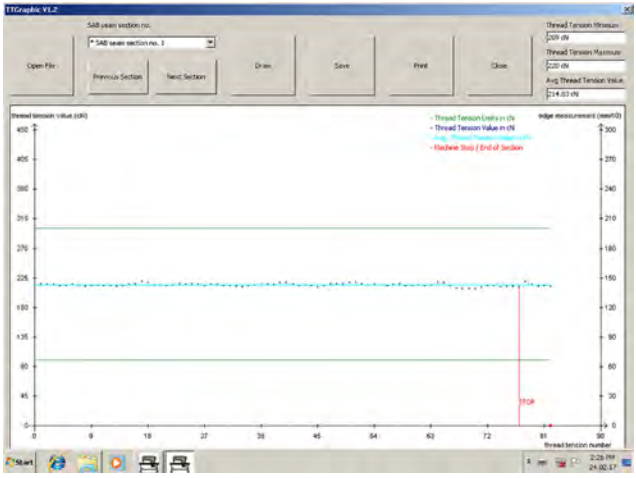
The barcode on the end label makes it possible to clearly identify which sewing material is associated with which thread tension values.

To look up the thread tension values:

1. Log in with security level **1** or **2** (📖 *p. 88*).
2. Open the *Database* display (📖 *p. 123*).
3. Select the desired protocol file.
4. Tap the **Thr. tens.** button.

↳ The display switches to:

Fig. 107: Thread tension (Thr. tens.)



5.6 Check

Users with security level **2** can use the `Checks` display to define all basic settings and re-define some access rights.

5.6.1 Structure of the Checks display

`Checks` 1st level	`Checks` 2nd level	`Checks` 3rd Level (selection)
Create a system back 🕮 *p. 133*		
Restore data 🕮 *p. 135*		
Print special label 🕮 *p. 137*		
Create a backup of the protocol database 🕮 *p. 136*		
Adopt data 🕮 *p. 138*		
Copy Dump Files 🕮 *p. 138*		
Overview of all connections 🕮 *p. 138*		
Setup 🕮 *p. 139*	Define barcodes 🕮 *p. 175*	Save barcode profile 🕮 *p. 176*
	Create label 🕮 *p. 180*	Define extended end label 🕮 *p. 191*
		Save end label 🕮 *p. 189*
	Path + network	Define storage paths 🕮 *p. 196*
		Define automatic backups 🕮 *p. 198*

Checks **1st level**	***Checks*** **2nd level**	***Checks*** **3rd Level (selection)**
Setup 🕮 *p. 139*	General settings 🕮 *p. 140*	Change barcode lengths 🕮 *p. 140*
		Define delimiters 🕮 *p. 140*
	Set components 🕮 *p. 143*	Set batch mode 🕮 *p. 178*
		Set multi barcodes 🕮 *p. 143*
	Set values	Change security levels 🕮 *p. 80*
Thread database 🕮 *p. 149*	Create a new thread 🕮 *p. 200*	
Thread database 🕮 *p. 149*	Create new/edit thread 🕮 *p. 202*	
	Delete thread 🕮 *p. 203*	
Print protocol database 🕮 *p. 150*		
Open seam database 🕮 *p. 151*		
Open bobbin database 🕮 *p. 152*	Delete bobbin 🕮 *p. 194*	
Open needle database 🕮 *p. 153*	Check needle 🕮 *p. 154*	
	Change needle 🕮 *p. 154*	
Calibrate step motor 🕮 *p. 155*		
Open calibration database 🕮 *p. 156*		

Checks 1st level	*Checks* 2nd level	*Checks* 3rd Level (selection)
Stitch length 🕮 *p. 157*	Check stitch length 🕮 *p. 158*	
	Calibrate stitch length 🕮 *p. 159*	
Check input/output 🕮 *p. 160*		
Check scanner 🕮 *p. 161*		
Check the sewing motor 🕮 *p. 162*		
Check thread tension 🕮 *p. 163*	Create teach-in file 🕮 *p. 203*	
	Check software version 🕮 *p. 165*	
Uninterrupted power supply (UPS) 🕮 *p. 166*		

5.6.2 Opening the *Checks* display

Fig. 108: Opening the Checks display (1)



To open the *Checks* display:

1. Log in with security level **2** (🕮 *p. 88*).
2. Tap the **Check** button on the main screen.

↳ The display switches to:

Fig. 109: Opening the Checks display (2)



5.6.3 Creating a system backup (*Backup system*)

The 550-867 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 **Microsoft XP** 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

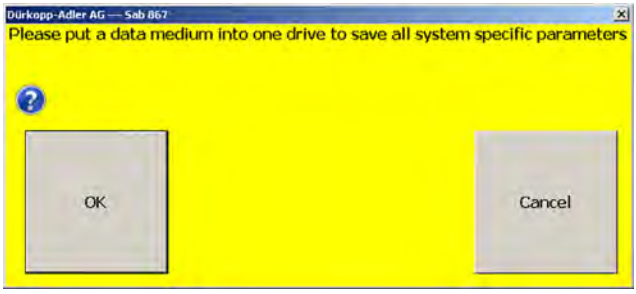
As the **SAB** software only monitors and saves the data of the tearing seams, you should create a backup of the complete system on a regular basis.

To create a system backup:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **Backup system** button.

↳ The display switches to:

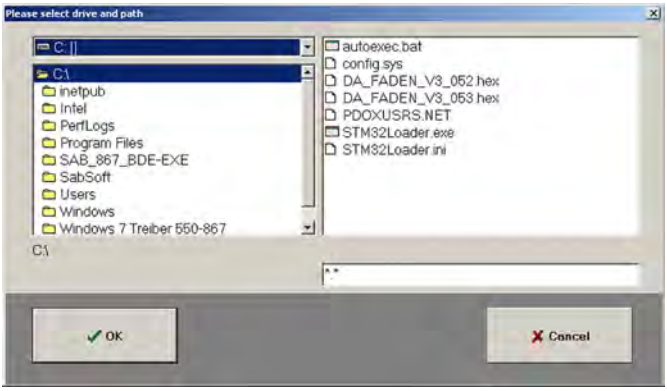
Fig. 110: Creating a system backup (Backup system) (1)



4. Confirm with **OK**.

↳ The display switches to:

Fig. 111: Creating a system backup (`Backup system`) (2)



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

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

Information

This function is helpful if you wish to set up several machines.

You can set up one machine, create a system backup on a USB key (📖 *p. 133*) and use the function `Restore system` to install the system backup on the next machine (📖 *p. 135*).

The storage location of the system backup can be changed at any time (📖 *p. 196*).

5.6.4 Restoring data (`Restore system`)

If you previously created a system backup (📖 *p. 133*), 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 helpful if you wish to set up several machines.

You can set up one machine, create a system backup on a USB key (📖 *p. 133*) and use the function `Restore system` to install the system backup on the next machine (📖 *p. 135*).

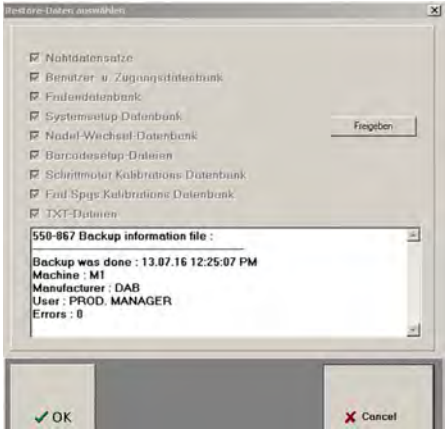
The storage location of the system backup can be changed at any time (📖 *p. 196*).

To restore the data:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Checks` display (📖 *p. 132*).
3. Tap the **Restore system** button.

↳ The display switches to:

Fig. 112: Restoring data (Restore system)



4. Tap the **Release** button.
   ↳ The listed parameters are now no longer displayed semi-transparent.
5. Select which 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 under the corresponding names of the machine to a protocol database.

1. Log in with security level **2** (📖 *p. 88*).
2. To create a backup of the protocol database, proceed as explained for the creation of a system backup (📖 *p. 133*).

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. 140*).

The storage location can be changed at any time (📖 *p. 196*).

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

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

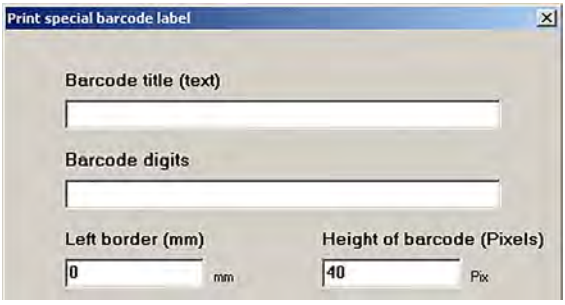
Here, you enter the barcode number, the text, the barcode height and the position from the left edge and print the barcode label.

To create and print a special label:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **Print BC label** button.

↳ The display switches to:

Fig. 113: Printing a special barcode 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 data of older software versions to the machine.

To transfer data from a different machine:

1. To transfer data to a different machine, proceed as explained for the creation of a system backup (🕮 *p. 133*).

5.6.8 Copying Dump Files

This function is used to copy all dump files.

To copy the dump files:

1. To copy dump files, proceed as explained for the creation of a system backup (🕮 *p. 133*).

5.6.9 Displaying connections

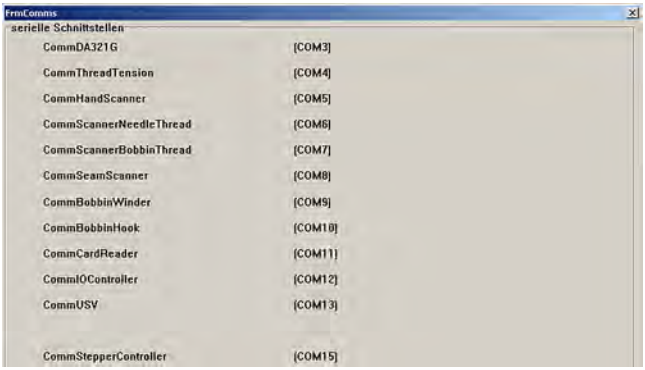
Here, you can view all connections of the machine.

To open the list of the connections present on the machine:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the `Checks` display (🕮 *p. 132*).
3. Tap the **Connections** button.

↳ The display switches to:

Fig. 114: Displaying connections



5.6.10 Setup

Stored on the *Setup* are all basic settings of the machine. These settings have been grouped into the 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 modify the settings.

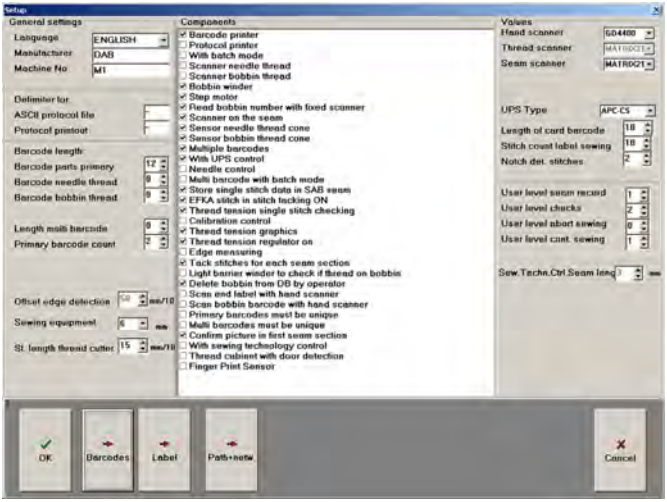
Opening the *Setup* display

To open the *Setup* display:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Setup** button.

↳ The display switches to:

Fig. 115: Opening the Setup display



General settings (*General settings*)

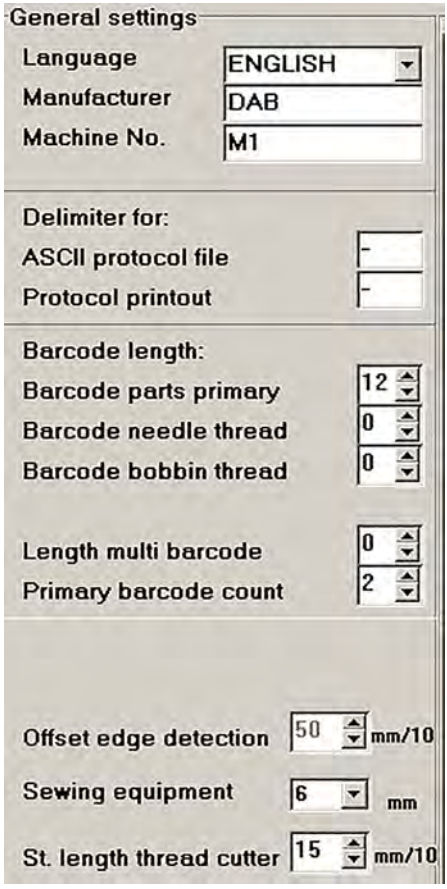
NOTICE

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. 116: General settings (General settings)



You can set the following under general settings:

Setting	Meaning
General settings	
Language	Set system language
Manufacturer	Assign a name for the manufacturer
Machine No.	Assign a name/number for the machine
Delimiter for:	
ASCI protocol file	Define a delimiter between the individual information of the stored data records (e.g. **-** or **I**)
Protocol printout	Define a delimiter between the individual information of the stored data records in 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 is allowed to have / how many digits will be read. The barcodes parts primary should contain 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 of the needle thread barcode on the needle thread reel will be read
Barcode bobbin thread	Defines how many digits of the hook thread barcode on the hook thread reel will be read
Length multi barcodes	Defines how many digits of the multi barcodes will be scanned If the setting is 0, the multi barcodes to be read can have any length

Setting	Meaning
Primary barcode count	Defines how many pieces will be sewn and how many barcodes parts primary will have to be scanned accordingly at the beginning of the sewing process (1, 2 or 3)
:	
Offset edge detection	The value can only be determined with the help of an edge/seam width detection sensor (see 🕮 *Additional Instructions*).
Sewing equipment	Select the sewing equipment used (Stitch length of 6 mm or 9 mm)
St. length thread cutter	Defines the length of the short stitch for the thread cutter (approx. 1.0-1.5 mm; the airier the material, the longer the short stitch needs to be)

Information
The changed settings will not be adopted until the program is restarted (🕮 *p. 208*). All changes will have been implemented after a restart.

Components

Fig. 117: Components



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

Component	Function
End label printer (*Barcode printer*)	For printing the barcode labels during the sewing process
Protocol printer	For printing the protocol data after the sewing process (can be connected as an option)
With batch mode	Allows for repeated sewing after a single scan. 🕮 *p. 178*
Scanner needle thread	Reading the needle thread barcode using the fixed scanner (optional 🕮 *p. 63*)

Component	Function
Scanner bobbin thread	Reading the hook thread barcode using the fixed scanner (optional 🕮 *p. 63*)
Winder	Motorized winder
Step motor	Stitch length adjustment controlled by step motor
Read bobbin number with fixed scanner	Bobbin identification by barcode (optional, 🕮 *p. 64*)
Scanner on the seam	Monitoring of the end label (optional, 🕮 *p. 62*)
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. 166*
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. 153*
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. 178* The batch size is used to define how many sewing processes are supposed to be completed before the barcodes will be requested again.

Component	Function
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
EFKA stitch in stitch tacking ON	Selection according to EFKA parameter setting (ornamental bartack or regular bartack)
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 step 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 📖 *p. 45*
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
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. 📖 *p. 34*
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. 80* If this function is activated, the button **Delete bobbin** will also be displayed on the main screen for users with security level **0**.

Component	Function
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 fixed scanners located at the bobbin and above the hook. 📖 *p. 64* This function makes it possible to use the hand scanner instead of the fixed 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 file (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 with the same content is scanned a second time, an error message will be displayed. All multi barcodes that can be used are recorded in a text file (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 start 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.

To activate/deactivate the components:

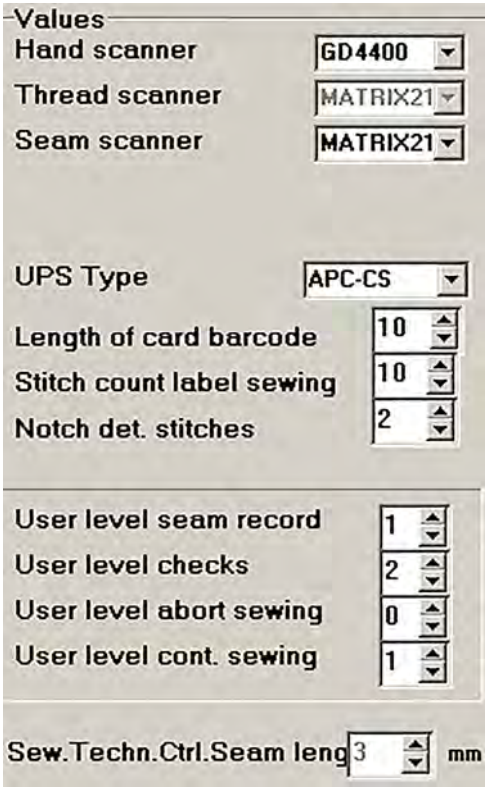
1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Tap the component you wish to activate/deactivate.

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

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

Values

Fig. 118: Values



Tap the arrows next to the buttons to open a selection menu.

Value	Function
Hand scanner	Select the hand scanner used
Thread scanner	Select the thread scanner used
Seam scanner	Select the seam scanner used
UPS Type	Select the type of the UPS
Length of card barcode	Length of the barcode used by the users to log in
Stitch count label sewing	If an end label is sewn in later, the seam will be sewn with the number of stitches set here.
Notch det. stitches	To prevent every thread crossing the light barrier to simulate 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.
User level seam record	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. 79*.
User level checks	
User level abort sewing	
User level cont. sewing	

Barcodes

The Barcodes display holds the basic settings for the barcodes (📖 *p. 170*).

Label

The Label display contains the basic settings for the end label (`Label`) (📖 *p. 180*).

Path + network

You can specify new storage locations for the following databases (🕮 *p. 196*):

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

You can also use the display to set the interval at which the protocol database will be backed up automatically (🕮 *p. 198*).

5.6.11 Opening the thread database (*Threads*)

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

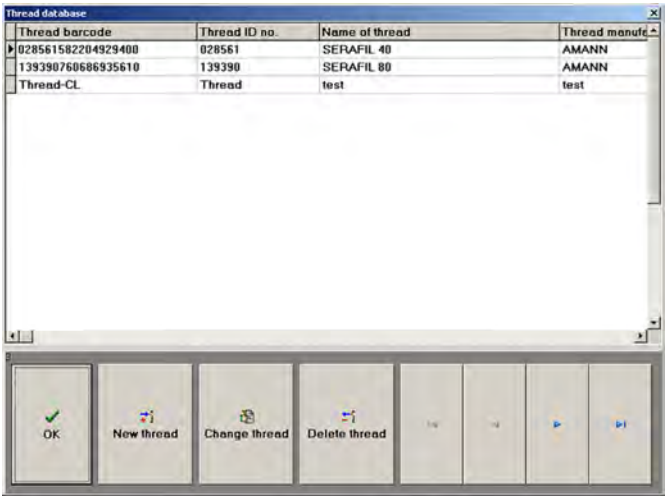
Here, you can edit (🕮 *p. 202*) and delete (🕮 *p. 203*) the threads you have already created and create new threads (🕮 *p. 200*).

To open the thread database:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Threads** button.

↳ The display switches to:

Fig. 119: Opening the thread database (Threads)



5.6.12 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. 87*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap 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.

5.6.13 Opening the seam database (*Show DB*)

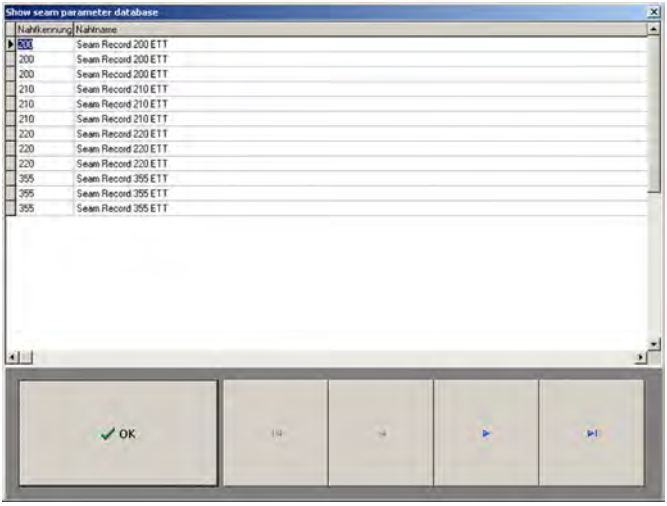
The seam database contains the information about all seam record sets and their settings.

To open the seam database:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Show DB** button.

↳ The display switches to:

Fig. 120: Opening the seam database (Show DB)



5.6.14 Opening the bobbin database (*Bobbins*)

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

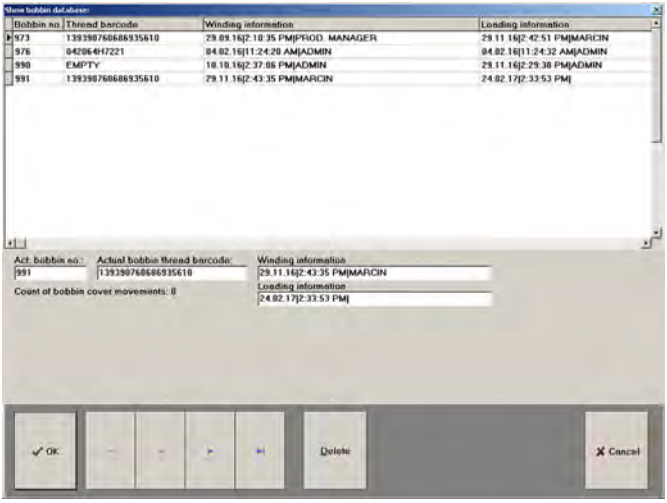
Information
The bobbins can be deleted here or on the main screen (📖 *p. 194*).

To open the bobbin database:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **Bobbins** button.

↳ The display switches to:

Fig. 121: Opening the bobbin database (Bobbins)



5.6.15 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.

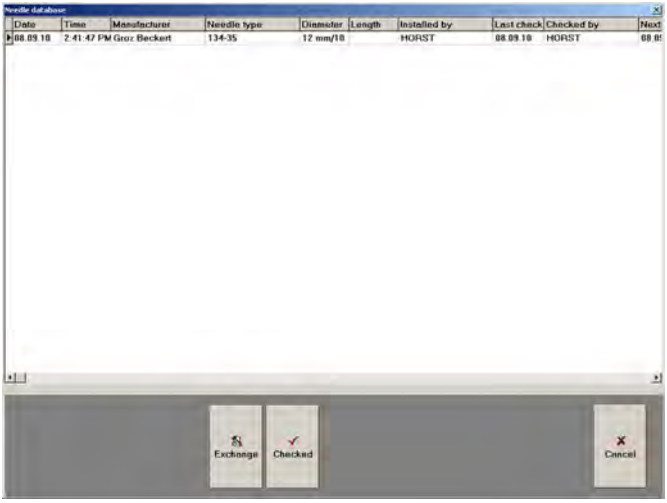
Opening the needle database

To open the needle database:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **Needle DB** button.

↳ The display switches to:

Fig. 122: Opening the needle database



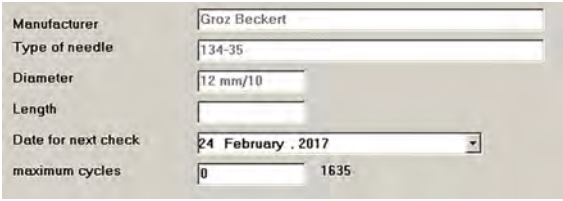
Scheduling a needle check

To schedule the time for the next needle check:

1. Open the needle database (📖 *p. 153*).
2. Tap the **Checked** button.

↳ The display switches to:

Fig. 123: Scheduling a needle check



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

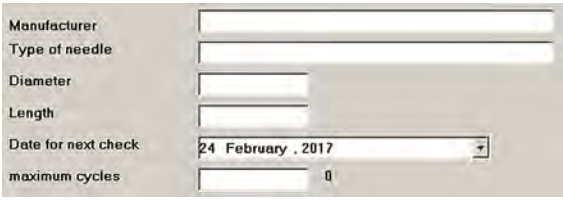
Registering a needle change

To register a needle change:

1. Open the needle database (📖 *p. 153*).
2. Tap the **Exchange** button.

↳ The display switches to:

Fig. 124: Registering a needle change



3. Change the needle (📖 *p. 26*).
4. Modify the data if necessary.
5. Confirm with **OK**.

5.6.16 Calibrating the step motor (*SM-Cali*)

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

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

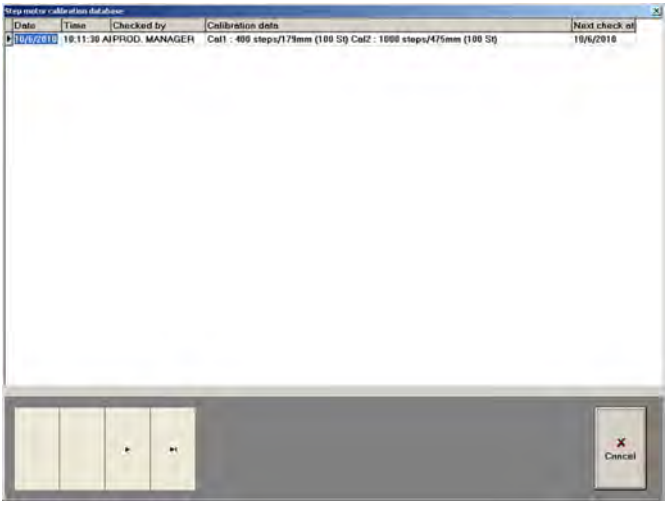
Information
If the function *Calibration control* is deactivated on the Setup display, the **SM-Cali** button will be displayed semi-transparent.

To open the step motor calibration database:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **SM-Cali** button.

↳ The display switches to:

Fig. 125: Calibrating the step motor (SM-Cali)



5.6.17 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.

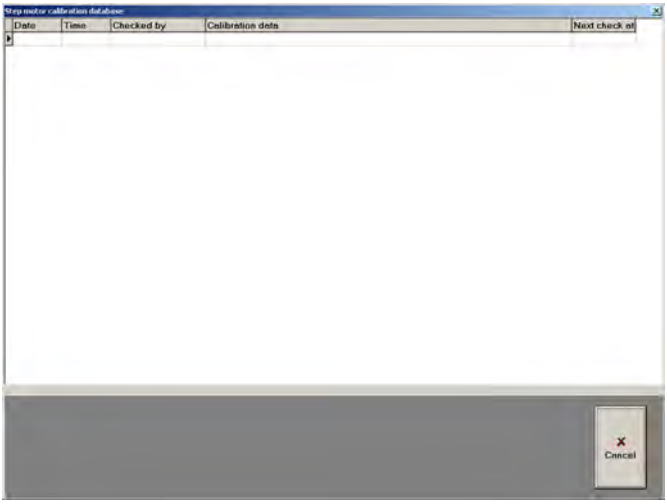
The thread tension sensor must be re-calibrated once a year. For this purpose, turn to our Dürkopp replacement service before the year runs out (*www.duerkopp-adler.com*).

To open the calibration database of the thread tension sensor:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **T.Tens.-Cali** button.

↳ The display switches to:

Fig. 126: Calibration database (T.Tens.-Cali)



5.6.18 Calibrating the stitch length (*SM*)

This function can be used to check and calibrate the stitch length.

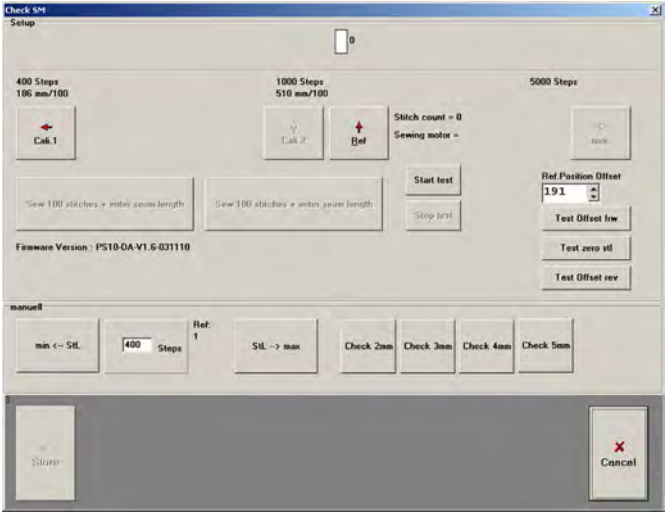
Opening the *Check SM* display

To open the Check SM display:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **SM** button.

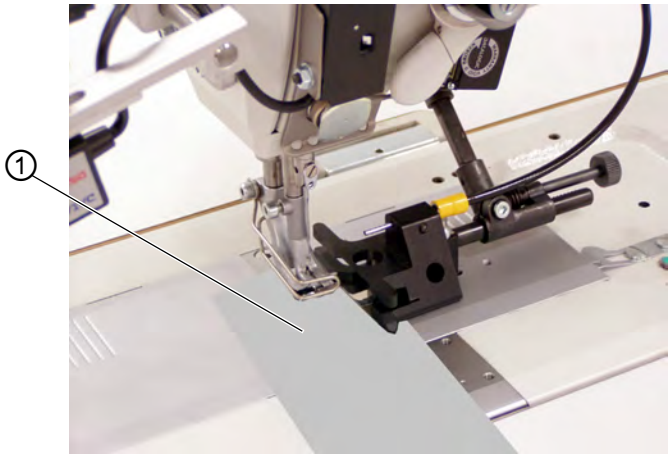
↳ The display switches to:

Fig. 127: Opening the Check SM display



Checking the stitch length

Fig. 128: Checking the stitch length



(1) - Strip of paper

To check the stitch length:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Check SM` display (📖 *p. 157*).
3. Pull the needle thread out of the needle eye.
4. Place the strip of paper (1) under the sewing foot.
5. Tap the **Check 2 mm** button.
6. Press the pedal to start the sewing process (📖 *p. 69*).

↳ The machine sews along a preset path.

7. Measure the stitch length.

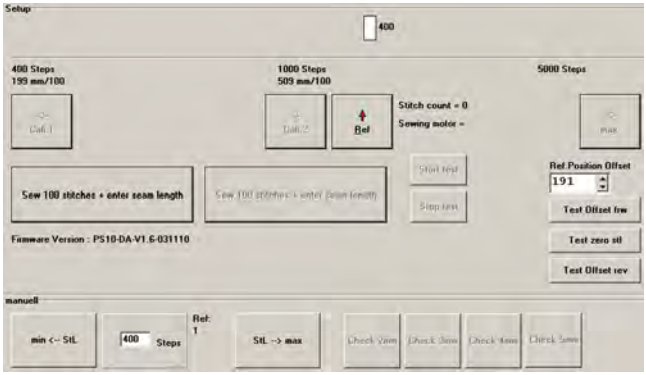
Calibrating the stitch length

To calibrate the stitch length:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the `Check SM` display (🕮 *p. 157*).
3. Pull the needle thread out of the needle eye.
4. Place the strip of paper (1) under the sewing foot.
5. Tap the **Cali. 1** button.

↳ The display switches to:

Fig. 129: Calibrating the stitch length



6. Tap the **Sew 100 stitches + enter seam length** button.

↳ An input field appears.

7. Press the pedal (🕮 *p. 69*).

↳ The machine sews along a preset path.

8. Measure the stitch length.
9. Enter the measured value into the input field.
10. Confirm with ↵.
11. Repeat steps 4-10 with **Cali. 2**.
12. Tap **Save** to confirm.

5.6.19 Checking input and output (*I/O*)

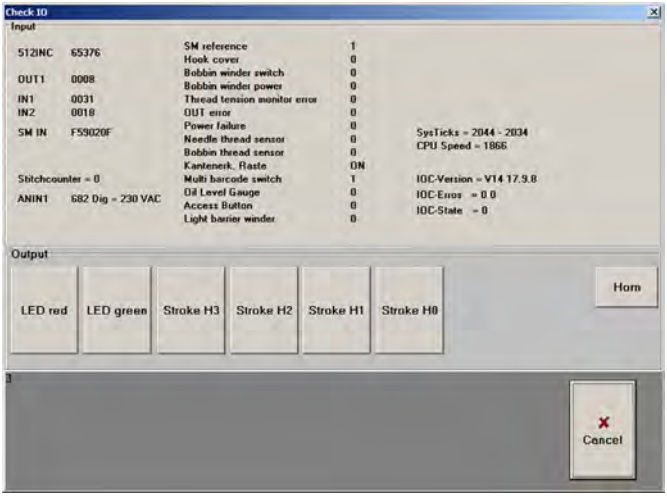
Here, you can check the input and output of the system.

To open the Input + Output display:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **I/O** button.

↳ The display switches to:

Fig. 130: Checking input and output (I/O)



Information

With a tap on **Horn** you sound an acoustic signal that is available as special equipment. It is not included in the standard equipment.

5.6.20 Checking the scanners (*Scanner*)

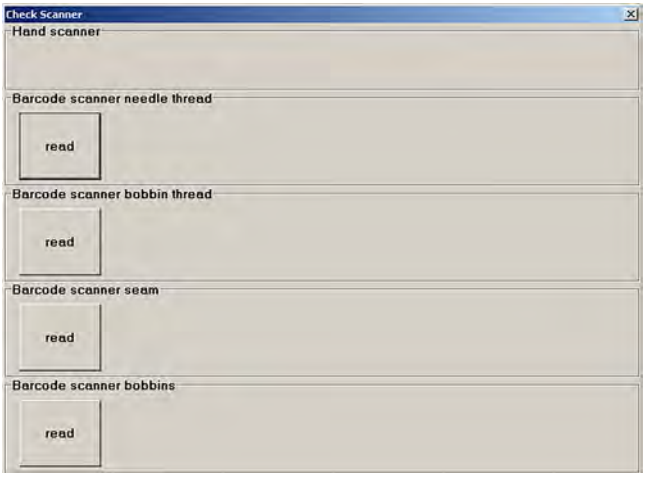
Here, you can check all assembled scanners.

To check the scanners:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Checks* display (📖 *p. 132*).
3. Tap the **Scanner** button.

↳ The display switches to:

Fig. 131: Checking the scanners (Scanner)



4. Tap the **read** button under the scanner you wish to check.

Information

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

5.6.21 Checking the sewing motor (*Sew. Motor*)

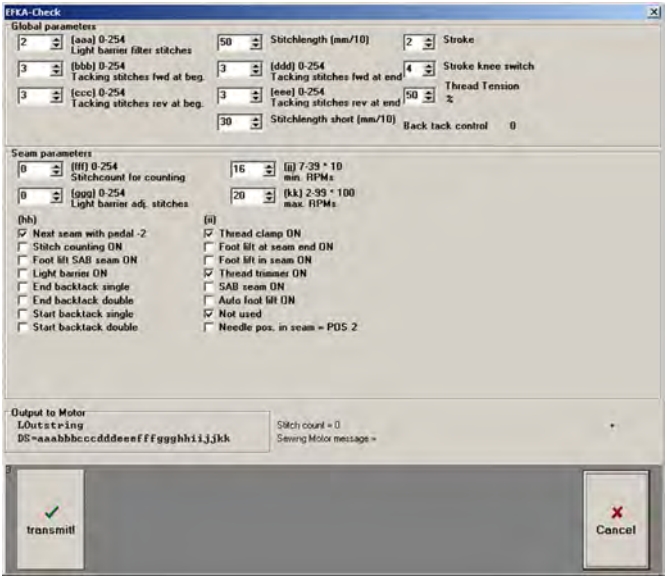
This function can be used to check all functions of the sewing motor.

To transfer such basic settings as start and end bartack, speed, stitch length, etc. to the control:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Sew. Motor** button.

↳ The display switches to:

Fig. 132: Checking the sewing motor (Sew. Motor)



4. Change the desired settings.
5. Tap the **Send** button.

↳ A needle is released.

5.6.22 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)

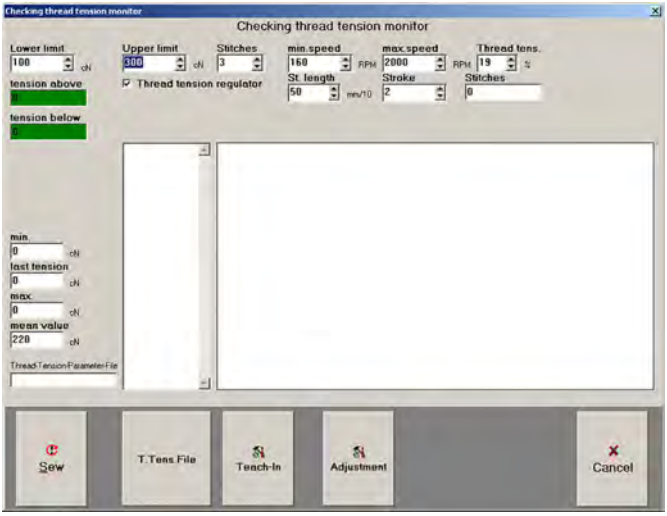
Opening the display *Checking thread tension monitor*

To open the display *Checking thread tension monitor*:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Thread tens.** button.

↳ The display switches to:

Fig. 133: Opening the display *Checking thread tension monitor*



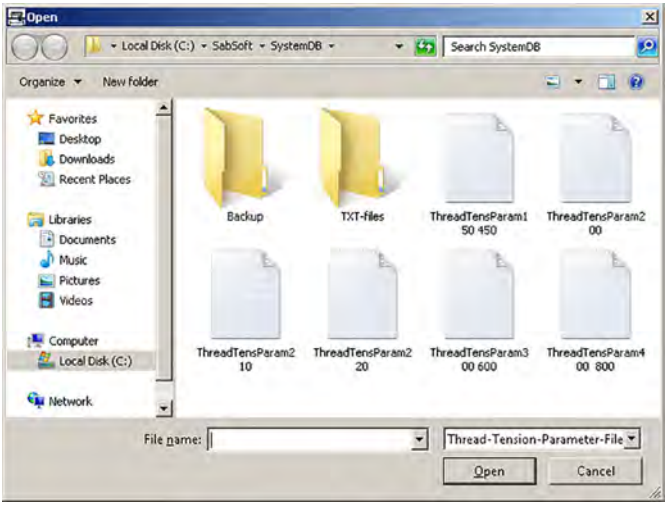
Loading a Teach-In for Thread Tension file

To load a Teach-In for Thread Tension file:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the display `Checking thread tension monitor` (🕮 *p. 163*).
3. Tap the **T.Tens.File** button.

↳ The display switches to:

Fig. 134: Loading a Teach-In for Thread Tension file



4. Select the desired teach-in file.
5. Tap **Open** to confirm.

Teach-In for Thread Tension

Here, you can link a teach-in file to a seam record set (🕮 *p. 203*).

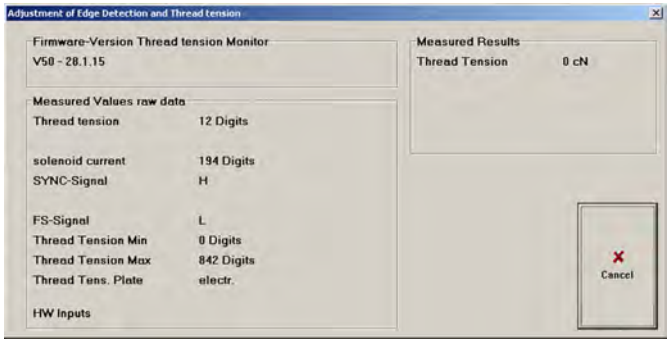
Checking the software version

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. 163*).
3. Tap the **Settings** button.

↳ The display switches to:

Fig. 135: Checking the software version



5.6.23 Uninterrupted power supply (*UPS*)

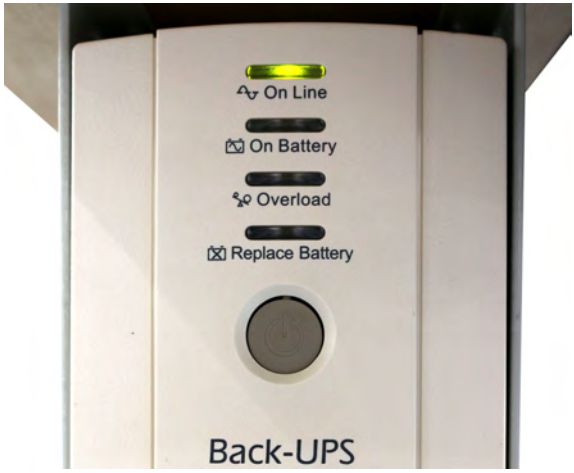
NOTICE

Property damage may occur!

Loss of data 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. 136: 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 switch automatically 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 (📖 *p. 75*).

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.

The check the current status of the UPS:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Checks` display (📖 *p. 132*).
3. Tap the **UPS** button.

↳ The display switches to:

Fig. 137: Uninterrupted power supply (UPS) (2)



5.7 Protocol printer

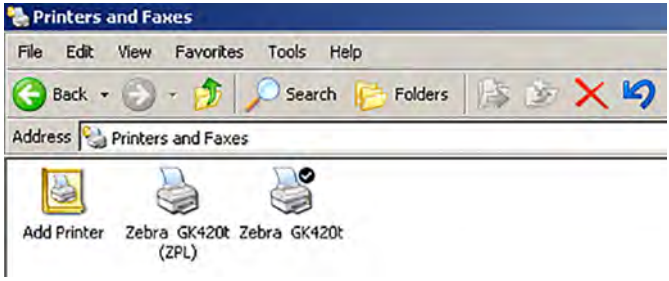
Before you can print a protocol database, you must connect an external protocol printer to the machine and install it on the control panel (📖 *p. 150*).

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

5.8 Uninstalling the barcode printer drivers

By default, the Windows printer screen shows two protocol printer drivers (`Zebra GK420t (ZPL)` and `Zebra GK420t`).

Fig. 138: Uninstalling the barcode printer drivers



- `Zebra GK420t (ZPL)`: a protocol printer driver detected and installed by the Windows operating system itself
- `Zebra GK420t`: the driver required by the protocol printer and installed by the installation program

Important

Both protocol printer drivers may only be uninstalled using the included `Uninstall` program.

To uninstall the protocol printer drivers:

1. Log in with security level **2** (📖 *p. 88*).

2. To access the Windows level,
   - press the Windows button on the keyboard
   - Exit program (📖 *p. 209*)
3. Open Windows Explorer.
4. Open the `PrinterDriver` folder.
5. Double-tap the `Driver Uninstall.exe` program.
6. Tap the **Next** button.

↳ The installed protocol printer drivers are displayed.

7. Select the `Zebra GK420t` driver.
8. Tap the **Remove** button.
9. Confirm with **OK**.

↳ The corresponding files are uninstalled.

10. Select the `Zebra GK420t (ZPL)` driver.
11. Tap the **Remove** button.
12. Confirm with **OK**.
13. Tap the **Next** button.
14. Tap the **Finish** button.

↳ The corresponding files are uninstalled.

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 this distance is not detected correctly, the end label printer must be re-calibrated.

To do so, refer to page 82 of the 📖 *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. 88*
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. 170*
Multi barcodes	Barcodes that may be requested after the barcodes parts primary at the beginning of a sewing process (up to 9, optional, 📖 *p. 179*).
Bobbin barcodes	Barcodes on the bobbins inside the winder and the hook (optional, 📖 *p. 64*)
Barcode of the needle thread reel	Barcode on the needle thread reel (optional, 📖 *p. 63*).
Barcode of the hook thread reel	Barcode on the hook thread reel (optional, 📖 *p. 63*).
Barcode on printed label	Barcode on the end label by means of which the production data can be traced back at any time

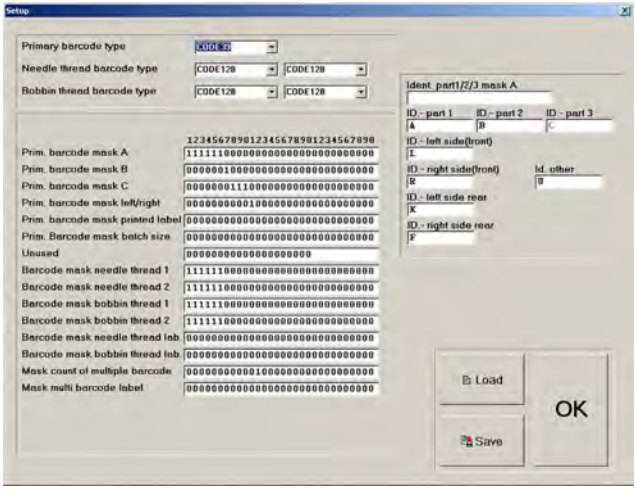
5.10.2 Opening the Barcodes display

To open the Barcodes display:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Tap the **Barcodes** button.

↳ The display switches to:

Fig. 139: Opening the Barcodes display (1)



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

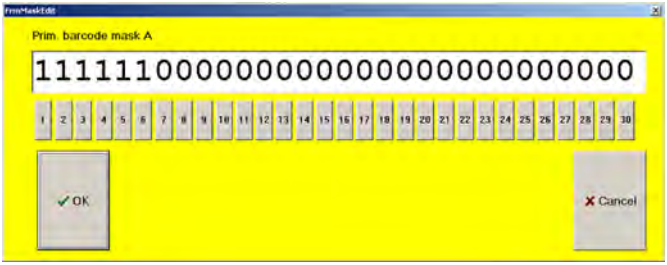
Information

0 = the digit of the barcode will not be read

1 = the digit of the barcode will be read

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

Fig. 140: Opening the Barcodes display (2)



In this example, the first 6 digits of the barcodes 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 can 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 or 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.

Barcode	Stored information
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: *00001000000000000000000000000*
Additional barcodes:	
Mask batch size	Batch mode must be activated if you a wish to store a corresponding piece of information here. 📖 *p. 178*
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.
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	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	
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. 141: 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. 88*).
2. Open the *Setup* display (📖 *p. 139*).
3. Open the Barcodes display (📖 *p. 171*).
4. Tap the **Primary barcode type** button.

   ↳ A drop-down menu opens.
5. Select the desired barcode type.

5.10.4 Defining a barcode

To define barcodes:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Setup* display (📖 *p. 139*).
3. Open the Barcodes display (📖 *p. 171*).
4. Tap the desired input field.

↳ An input field 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 (always 3 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

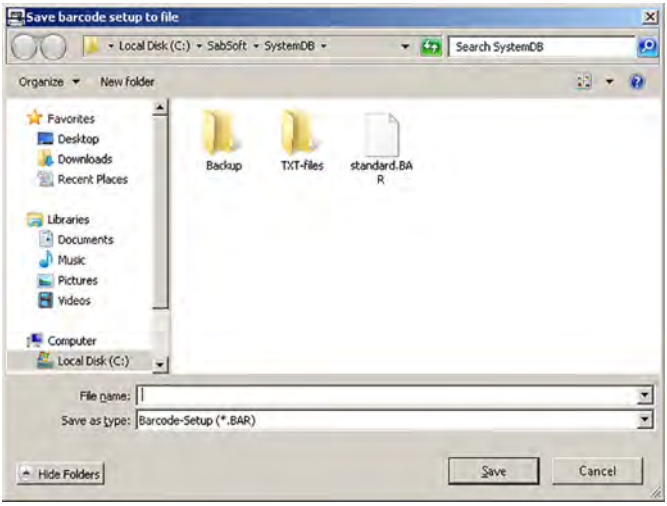
All settings of the barcode can be saved as a barcode profile. Loading a barcode profile eliminates the need to define and save all information more than once.

To save the barcode settings:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the `Setup` display (🕮 *p. 139*).
3. Open the Barcodes display (🕮 *p. 171*).
4. Tap the **Save** button.

↳ The display switches to the storage path.

Fig. 142: Saving a barcode profile



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

↳ The barcode profile is stored on the hard drive of the control panel and can be loaded at any time (🕮 *p. 177*).

5.10.6 Loading a barcode profile

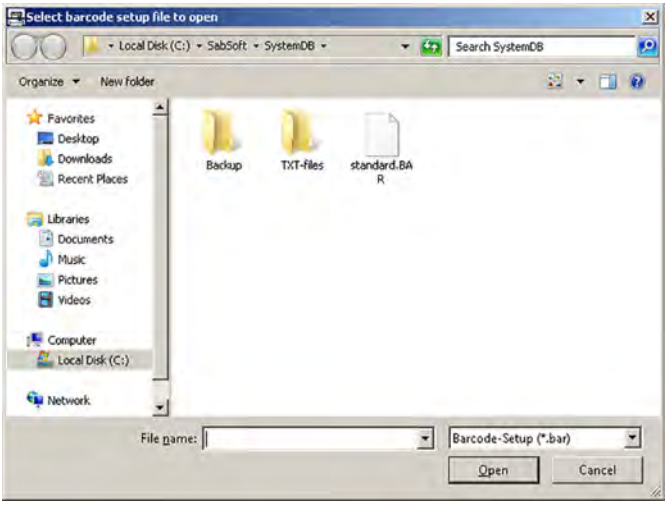
Loading a barcode profile eliminates the need to define and save all information more than once. If individual settings of this profile are changed, the original setting can be quickly restored by loading the barcode profile.

To load a barcode profile:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the `Setup` display (🕮 *p. 139*).
3. Open the Barcodes display (🕮 *p. 171*).
4. Tap the **Load** button.

↳ The display switches to:

Fig. 143: Loading a barcode profile



5. Select the desired barcode profile name.
6. Tap **Open** to confirm.

↳ 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. 179*).

To activate the batch mode function:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the *Setup* display (📖 *p. 139*).
3. Go to the *Components* section and activate the *With batch mode* function.

↳ The checkmark 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 **Multi barcode with batch mode** instead of the *With batch mode* function.

4. Open the Barcodes display (📖 *p. 171*).
5. Specify under *Mask batch size* how large the batch size is supposed to be.

   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**0000000000000000000000000*

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. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Open the Barcodes display (📖 *p. 171*).

↳ The display switches to:

Fig. 144: 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 `Multi barcode mask printed label` whether information / which digits of the multi barcodes on the end label is / are supposed to be added.

   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`)

Here, you define the layout of the end label. 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.

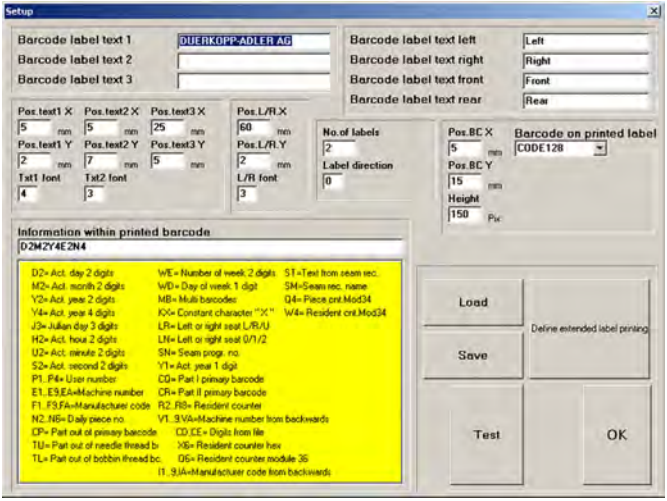
You can use the software or the additional program `Label Creator` to create the end label (📖 *p. 212*).

5.13.1 Opening the End label display

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Tap the **Label** button.

↳ The display switches to:

Fig. 145: Opening the End label display



5.13.2 Defining the end label text

You can define text for the end label and specify its position as well as create the information to be included in the barcode.

To define the text:



1. Log in with security level **2** (📖 *p. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap 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 field appears.
4. Enter the desired text.
5. Confirm with ↵.

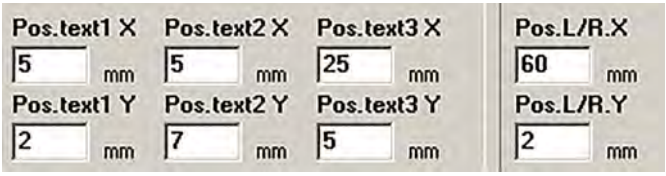


Information
You do not have to complete all text fields.

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).
The information is specified in mm.

Fig. 146: Positioning the text on the end label



To position the text on the end label:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap the **Pos.text1 X** input field.

↳ An input field opens.

4. Enter the desired value.
5. Confirm with ↵.
6. Tap the **Pos.text1 Y** input field

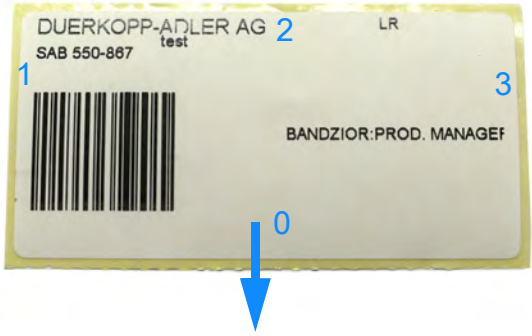
↳ An input field opens.

7. Enter the desired value.
8. Confirm with ↵.
9. To position the text 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. 147: 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 end 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. 148: Defining the format of the end label (2)



To define the format of the end label:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the End label display (📖 *p. 180*).

3. Tap the **Label direction** input field.

↳ An input field opens.

4. Enter the desired value:
   - Landscape: **0** or **2**
   - Portrait: **1** or **3**

5. Confirm with ↵.

Information
To view the end label, tap 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. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap the **Pos.BC X** input field.

↳ An input field opens.

4. Enter the desired value.
5. Confirm with ↵.
6. Tap the **Pos.BC Y** input field.

↳ An input field 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. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap the **Txt1 font**, **Txt2 font** or **L/R font** input field.

↳ An input field opens.

4. Enter the desired value (1-5).
5. Confirm with ↵.

5.13.7 Defining an end label barcode type

To define the end label barcode type:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap 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, tap the **Test** button.

The end label is printed out once.

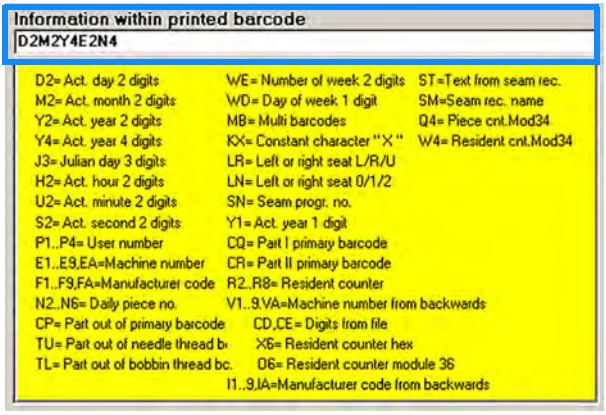
5.13.8 Defining the content of the end label barcode

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. 88*).
2. Open the End label display (📖 *p. 180*).

Fig. 149: Defining the content of the end label barcode



3. Tap the **Information within printed barcode** input field.

↳ An input field opens.

4. Enter the acronym 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 are 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	Number of days a year 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 personal number 1 digit E.g.: 1234 = 1
P2	Current personal number 2 digits E.g.: 1234 = 12
P3	Current personal number 3 digits E.g.: 1234 = 123
P4	Current personal 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 digits 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 digits. 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

Code	Information
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.*
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	Left or right seat L/R/U
LN	Left or right seat 0/1/2
SN	Seam record code
Y1	Year 1 digit E.g.: 2016 = 6
CQ	Part I primary barcode
CR	Part II primary barcode
R2-R8	Resident counter
V1...3	Machine number from backwards
CD, CE	Digits from file

5.13.9 Saving an end label

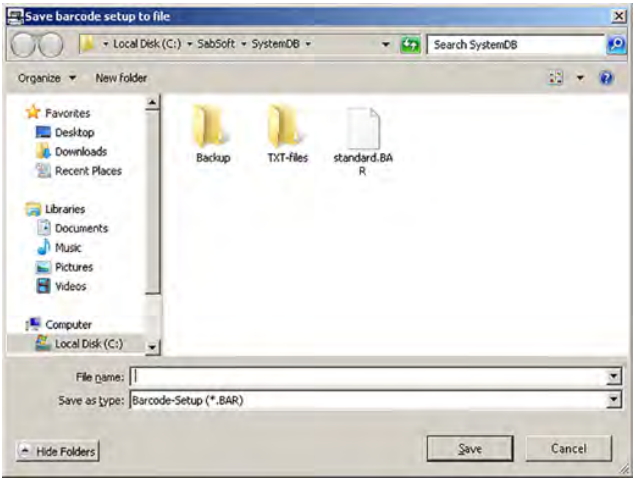
All settings of the end label can be saved as an end label profile. Loading an end label profile eliminates the need to define and save all information more than once, allowing for a quick retrieval of the information at any time.

To save the barcode settings:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the End label display (📖 *p. 180*).
3. Tap the **Save** button.

↳ The display switches to the storage path.

Fig. 150: Saving an end label



4. Enter the desired end label profile name.
5. Tap **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. 177*).

5.13.10 Loading an end label

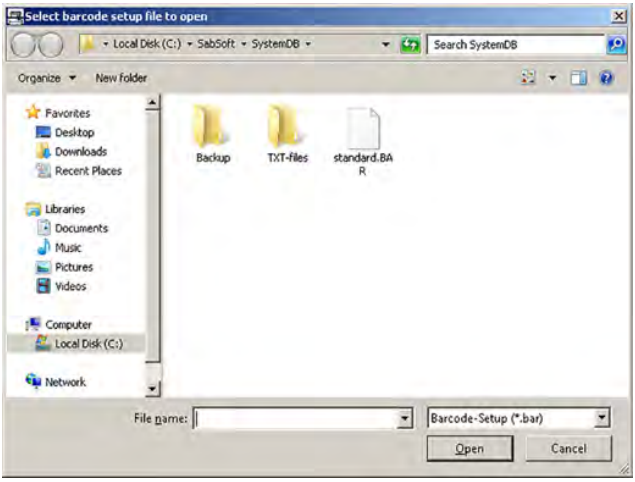
Loading an end label profile eliminates the need to define and save all information more than once, allowing for a quick retrieval of the information at any time.

To load an end label profile:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the End label display (🕮 *p. 180*).
3. Tap the **Load** button.

↳ The display switches to:

Fig. 151: Loading an end label



4. Select the desired end label profile.
5. Tap **Open** to confirm.

↳ 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.

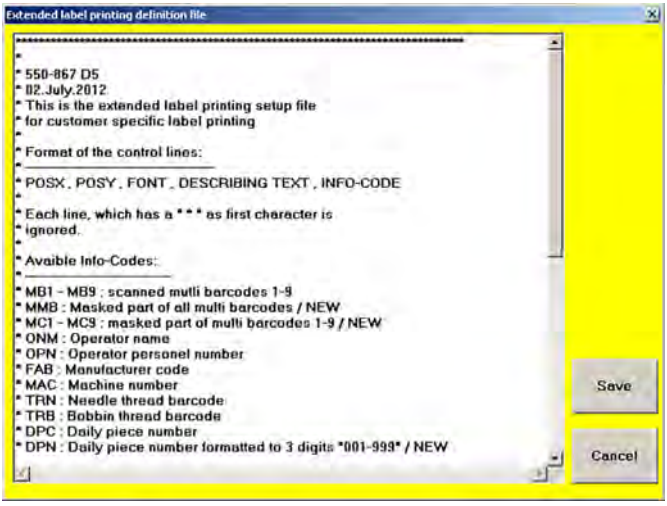
Information
If extended label printing is active, the information will be printed at the defined position irrespective of the loaded barcode profile.

To extend the information to be printed on the label:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Tap the **Label** button.
4. Tap the **Define extended label printing** button.

↳ The display switches to:

Fig. 152: Defining extended label printing



5. Select the desired acronyms.
6. Tap **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
MC1-MC9	Section of a multi barcode 1-9 cut out with the end label multi barcode mask
ONM	Name of the user with security level **0**
OPN	Personnel ID 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 record 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

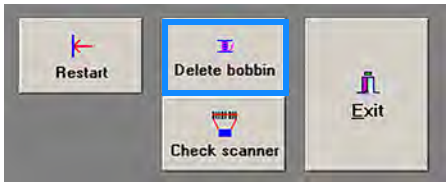
Code	Information
SRT	End label text from seam record set
CYN	Cycle number
DT2	Date: Day, month, year - 2 digits each
RC2-RC8	Resident parts counter, 2 to 8 digits
GRP	Graphic print, graphic file in BMP file; instead of the text, file name without *.bmp*. File must be stored in the directory C:\SabSoft\Systemdb.
CPR	Section of the barcode parts primary 1 defined for the end label using the mask provided on the Barcode display 📖 *p. 175*
ELA	Barcode on printed label
ELB	Barcode on printed label 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. 153: Deleting a bobbin (1)



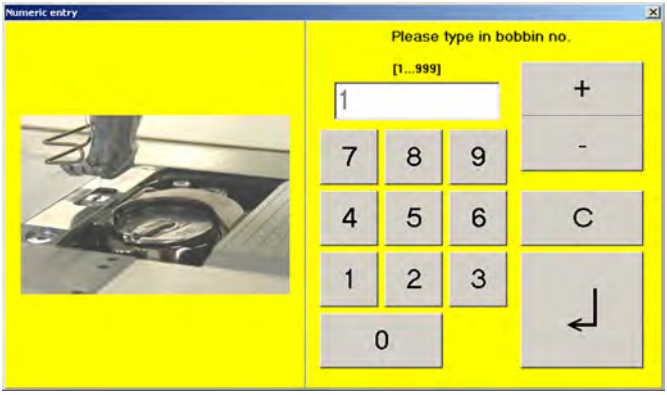
Bobbins can be deleted directly from the main screen or in the bobbin database (📖 *p. 152*).

To delete a bobbin:

1. Tap the **Delete bobbin** button on the main screen.

↳ An input field appears:

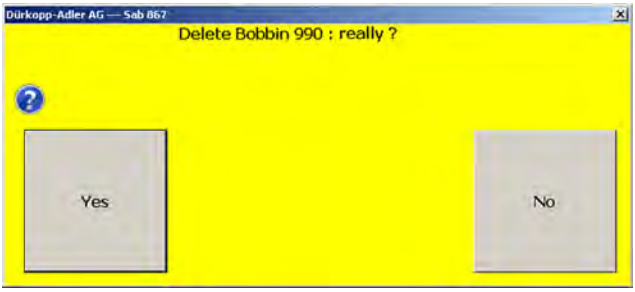
Fig. 154: Deleting a bobbin (2)



2. Enter the three-digit bobbin number (001-999).
3. Confirm with ↵.

↳ The display switches to:

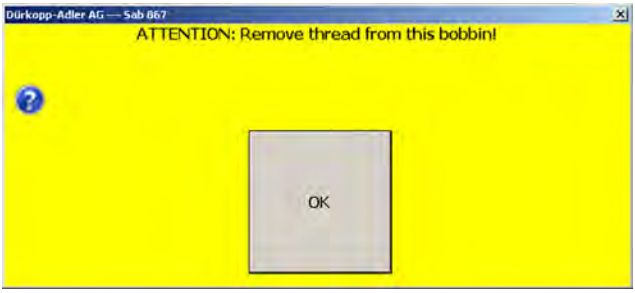
Fig. 155: Deleting a bobbin (3)



4. Tap the **Yes** button.

↳ The display switches to:

Fig. 156: 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:

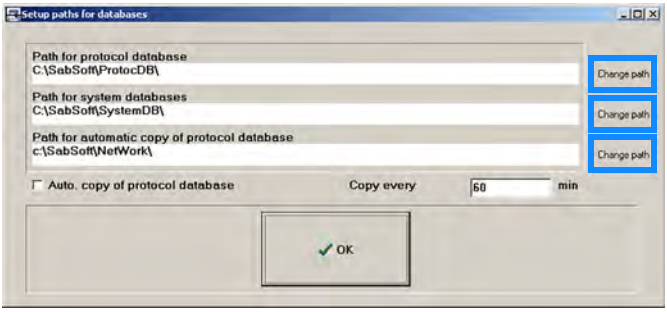
Path	Function
Path for the protocol database	Storage location of • the entire protocol database 🕮 *p. 136* • the individual protocol files 🕮 *p. 125*
Path for the system databases	Storage location of the system backups 🕮 *p. 133*
Path for the automatic copy of the protocol database	Storage location for copies of • the entire protocol database 🕮 *p. 136* • the individual protocol files 🕮 *p. 125*

To change a storage location:

1. Log in with security level **2**.
2. Open the *Setup* display (🕮 *p. 139*).
3. Tap the **Path+netw.** button.

↳ The display switches to:

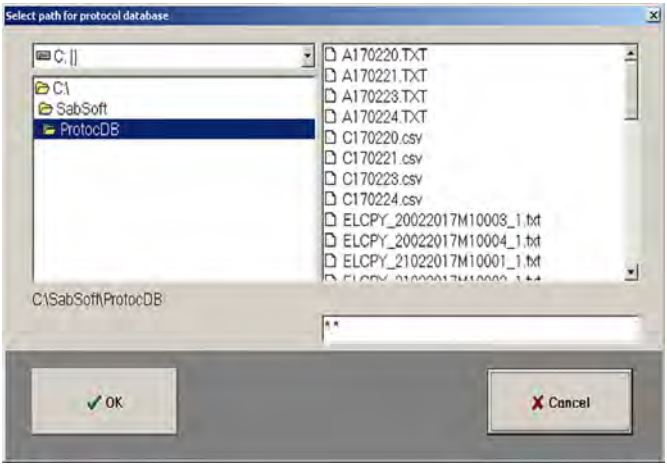
Fig. 157: Changing the storage location (1)



4. Tap the desired **Change path** button.

↳ The display switches to, for instance:

Fig. 158: Changing the storage location (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

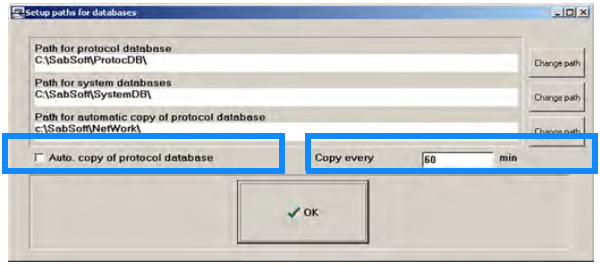
It is advisable to set automatic backups of the protocol database. Manufacturers of tearing seams are required to provide for the long-term archiving of the protocol database.

To specify if and when a backup of the protocol database will be generated automatically:

1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Setup` display (📖 *p. 139*).
3. Tap the **Path+netw.** button.

↳ The display switches to:

Fig. 159: Setting an automatic 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. Tap the **Copy every** input field.

↳ An input field opens.

6. Enter the desired number of minutes.

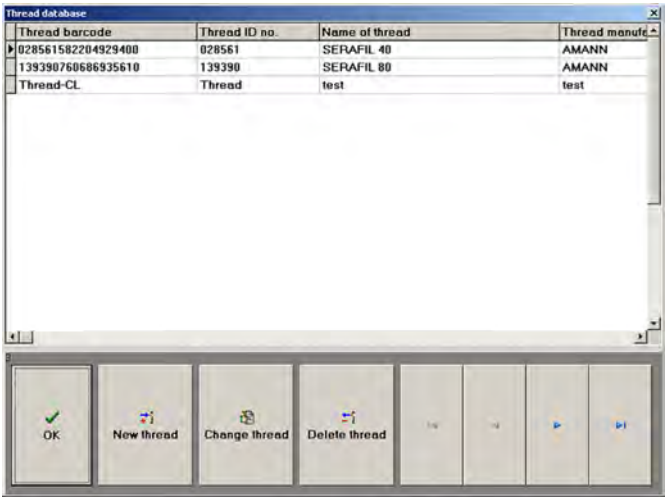
↳ In the example given, an automatic backup of the protocol database will be generated every 60 minutes.

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 (🕮 *p. 149*).

Fig. 160: Thread database



The thread database allows you to

- create a new needle and/or hook thread,
- change a needle and/or hook thread or
- 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. 175*). The manufacturer may include such information in the first 4 digits as the type or the color of the thread.

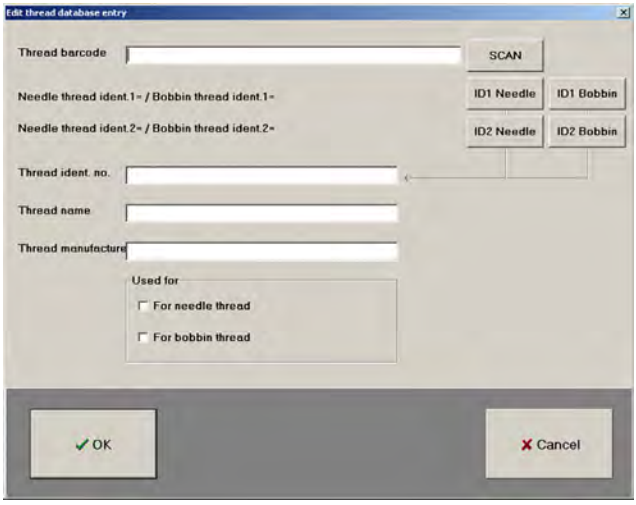
The ident. number is stored in the seam record sets. A check at the beginning of the sewing process will determine if the needle and hook threads on the machine match the selected seam record set. If the threads match the seam record set, the sewing process can be started. If not, an error message will 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. 88*).
2. Open the `Thread database` (📖 *p. 149*).
3. Tap the **New thread** button.

↳ The display switches to:

Fig. 161: Creating a new thread





4. Register a new thread barcode by
   - scanning
   - entering
5. To enter the thread barcode, tap the **Thread barcode** button.

↳ An input field opens.

6. Enter the desired ident. number.
7. Confirm with **OK**.

Or

8. To scan the thread barcode, tap 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 the *Thread database*.

5.16.2 Changing a thread

To change a thread:

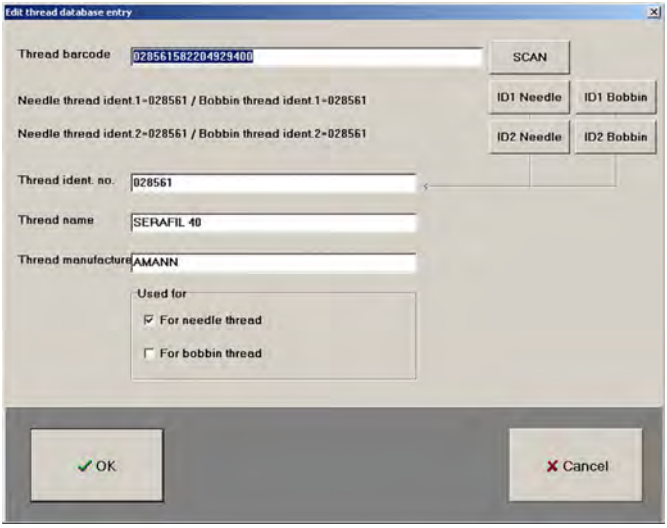
1. Log in with security level **2** (📖 *p. 88*).
2. Open the `Thread database` (📖 *p. 149*).
3. Select the desired thread in the thread database.

↳ The small arrow in the left column marks the currently selected thread.

4. Tap the **Change thread** button.

↳ The display switches to:

Fig. 162: 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. 88*).
2. Open the `Thread database` (📖 *p. 149*).
3. Select the desired thread in the thread database.

   ↳ The small arrow in the left column marks the currently selected thread.
4. Tap the **Delete thread** button.
5. Confirm with **OK**.

5.17 Creating a teach-in file

If the machine is equipped with the 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 this 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

Only allow qualified specialists to create teach-in files.

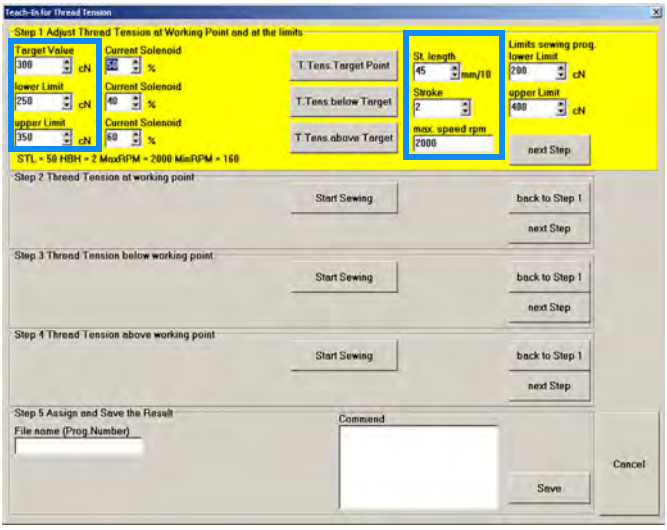
Information
The display *Teach-In for Thread Tension* is divided into several sections (*Step 1-5*). The section currently being edited is highlighted in yellow. The sections that have already been completed are highlighted in green.

To create a teach-in file:

1. Log in with security level **2** (🕮 *p. 88*).
2. Open the *Checks* display (🕮 *p. 132*).
3. Tap the **Thread tens.** button.
4. Tap the **Teach-In** button.

↳ The display switches to:

Fig. 163: Creating a teach-in file (1)



5. Enter the desired target value of the documented seam section.

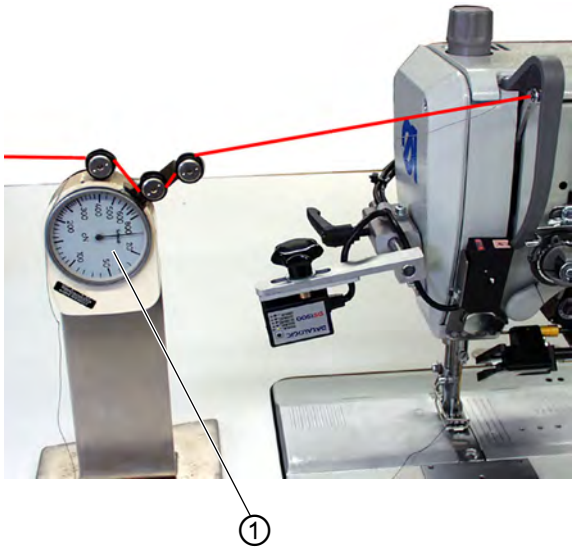
   Use the manufacturer's specifications as a reference.

↳ The upper and lower limit will be entered automatically as soon as the target value has been defined.

6. Enter the desired values:
   - Maximum speed (*max. speed rpm*)
   - St. length in 1/10 mm
   - Stroke
7. Tap the **Fa Setzen (Set Th)** button.

↳ The value of the needle thread tension is adopted.

Fig. 164: Creating a teach-in file (2)

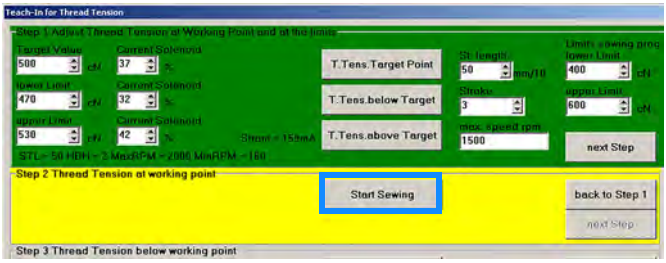


(1) - Thread tension scale

8. The needle thread tension is checked with a thread tension scale.
9. Adjust the values for the *Current Solenoid*:
   - lower value: lower needle thread tension
   - higher value: greater needle thread tension
10. Check the *Lower limit (Fu)* using a thread tension scale.
11. Adjust the values as necessary.
12. Check the *Upper limit (Fo)* using a thread tension scale.
13. Adjust the values as necessary.
14. Tap the **next Step** button.

↳ The display switches to:

Fig. 165: Creating a teach-in file (3)

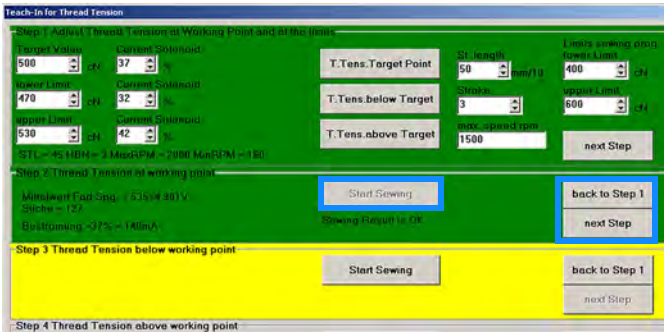


↳ Step 1 and step 2 are now highlighted in green and yellow, respectively.

15. Tap the **Start Sewing** button.

↳ The display switches to:

Fig. 166: Creating a teach-in file (4)



↳ The current values are listed under step 2.

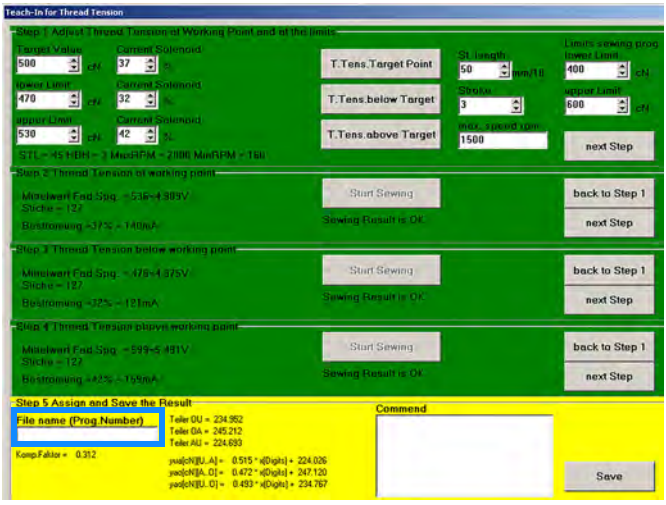
16. Create at least 2 additional test seams under step 2.

Important

At least 3 test seams need to produce a positive result before you can proceed with the next step.

17. 2 options:
    - Change values: Tap the **back to Step 1** button
    - Keep testing values: Tap the **next Step** button.
18. For steps 3 and 4, proceed as described for step 2.
19. The display switches to:

Fig. 167: Creating a teach-in file (5)



↳ The currently measured values are listed under steps 2-4.

20. If all values are correct, tap the **File name (Prog.Number)** input field.

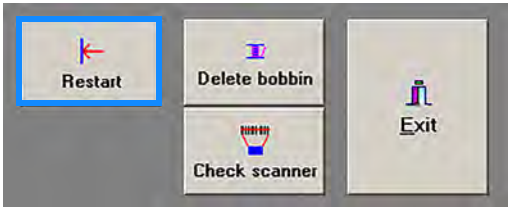
↳ An input field appears.

21. Enter the name / code of the seam record set to which the teach-in file is supposed to be linked.
22. Confirm with **OK**.
23. If necessary, add a comment to the teach-in file.
24. To save the teach-in file, tap 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. 168: Restarting the program (Reset) (1)

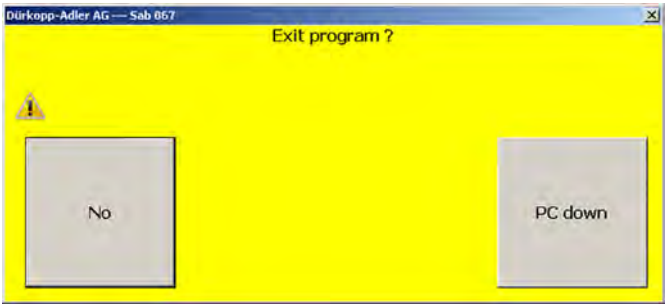


To restart the program:

1. Tap the **Reset** button on the main screen.

↳ The display switches to:

Fig. 169: Restarting the program (Reset) (2)



↳ 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

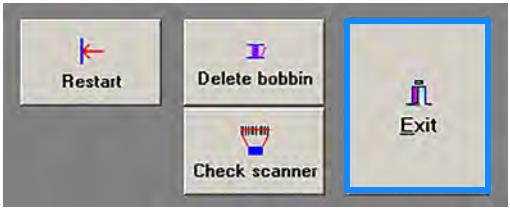
You can exit the program without having to switch off the machine and the control panel.

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. 170: Exiting the program (1)

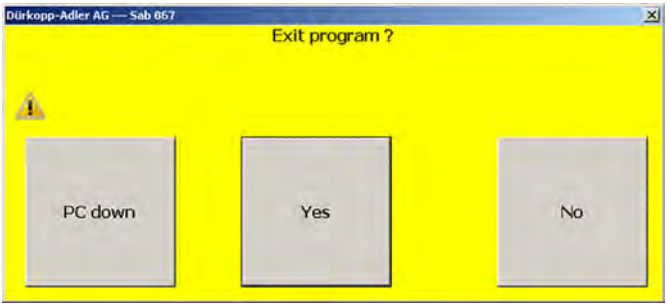


To exit the program:

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

↳ The display switches to:

Fig. 171: Exiting the program (2)



2. Tap the **Yes** button.

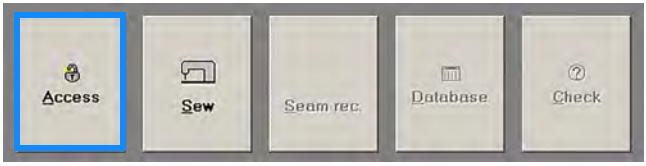
↳ The program is closed, and the Windows user interface appears.

↳ 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. 172: Logging out of the system (1)



To log out of the system:

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

↳ The display switches to:

Fig. 173: Logging out of the system (2)



2. Tap the **Log out** button.

↳ The display switches to:

Fig. 174: 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. 180*) 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:
  - Content
  - Position
  - Size
- Defining additional text:
  - Content
  - Position
  - Size
- Adding graphic (e.g. logos)

The system will generate 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. 112*).

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.

Additional information

The following description refers to the factory settings.
This description cannot include any individual changes such as modified storage locations.

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`:

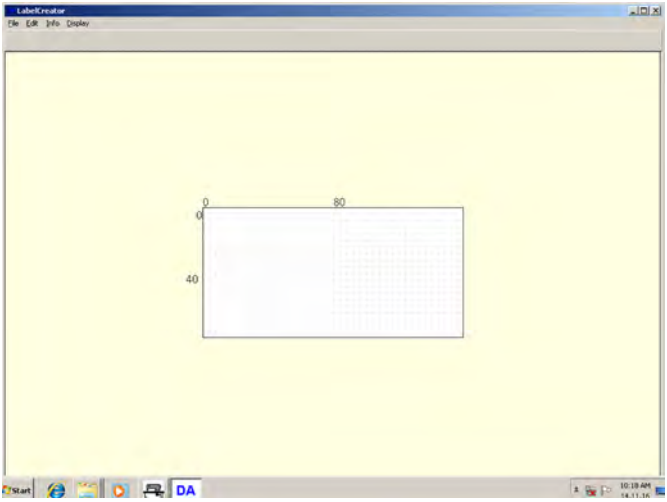
1. Log in with security level **2** (📖 *p. 88*).
2. To access the Windows user interface, press the Windows button on the keyboard.

Information
To access the Windows user interface without using the keyboard, exit the program (📖 *p. 209*).

3. Open Windows Explorer.
4. Got to the `c:SabSoft_SystemDB` directory and open the additional program named `DALabelCreator`.

↳ The display switches to:

Fig. 175: 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. 217*).
6. Open the `Toolbox` and place it next to the end label (📖 *p. 218*).

Fig. 176: Preparing the end label (example) (2)



7. Create and insert the end label barcode (📖 *p. 222*).
8. If necessary, create and insert another barcode (📖 *p. 225*).

Important

If adding an additional barcode, you must not define this barcode as an end label barcode 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. 225*).
10. Create and insert variable text (📖 *p. 226*).
11. Insert a graphic; e.g. the company logo (📖 *p. 227*).
12. Save the new label script file (📖 *p. 228*).

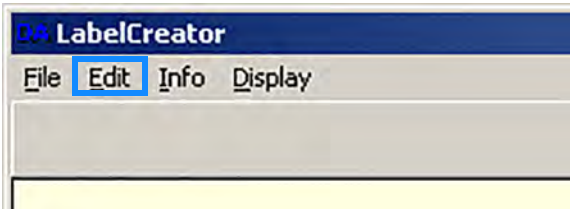
5.21.2 Default settings

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 bars 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. 183*	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. 185*	Enter the desired value.

5.21.3 Adjusting the end label size

Fig. 177: Adjusting the end label size (1)



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. 178: Adjusting the end label size (2)



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 that each end label is supposed to be cut after being printed by the end label printer, set the checkmark at **Option Cutter**.

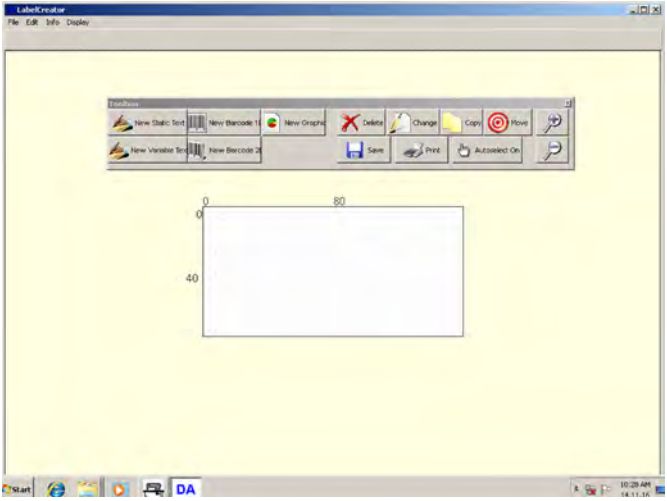
Information
If you do not wish to have the end label cut by the end label printer, but want to, for instance, tear off the label manually, you must not set the checkmark at **Option Cutter**. The included end label printer does not come with a cutting device.

7. To set the resolution of the end label printer, enter the corresponding DPI number in the *Printer Resolution DPI* input field.
8. Tap **OK** to save.

5.21.4 Opening the *Toolbox*

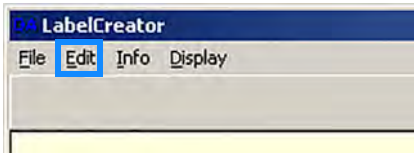
The *Toolbox* is a menu bar that can be placed on the program interface of the *Label Creator*. You can use the *Toolbox* to directly access all important functions necessary to create an end label.

Fig. 179: Opening the toolbox (1)



Information
The *Toolbox* contains all options available under the menu item **Edit**

Fig. 180: 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. 181: 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. 225*)
- Variable text (**New Variable Text,** 🕮 *p. 226*)
- 1D barcode (**New Barcode 1D,** 🕮 *p. 222*)
- 2D barcode (**New Barcode 2D,** 🕮 *p. 222*)
- Graphic (**New Graphic**, 🕮 *p. 227*)

To insert new contents:



1. Tap 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. Tap **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:

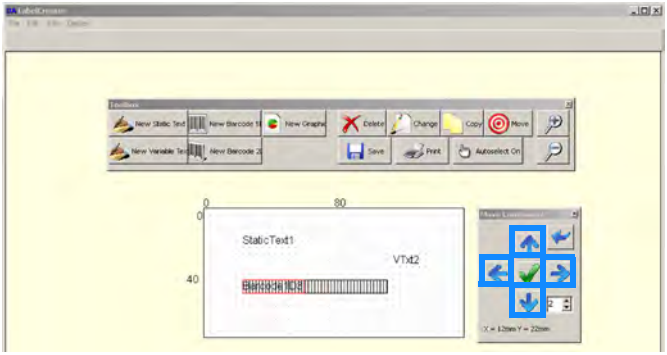
1. To move contents, tap the **Move** button in the *Toolbox*.

   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. 182: Moving contents (1)



3. To move content, click on the blue arrow buttons.

Fig. 183: 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. Tap 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. 184: Creating a barcode (1)

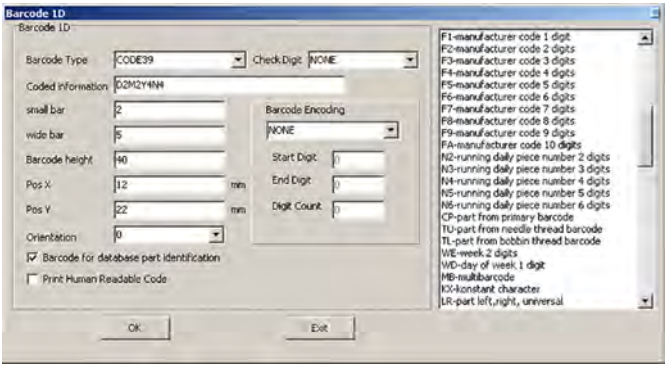
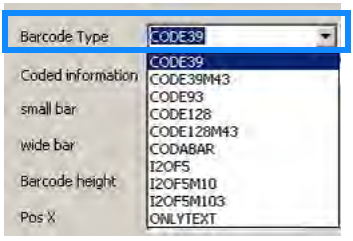


Fig. 185: Creating a barcode (2)

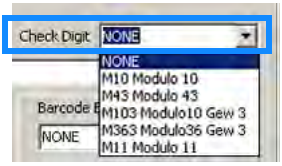


3. Select the desired barcode type from the drop-down menu of the **Barcode Type** input field.

Important

Select the same barcode type here that has been set as the hand scanner barcode on the *Setup* (📖 *p. 147*).

Fig. 186: Creating a barcode (3)



4. If you do not wish to add a check digit to the barcode, access the down-down menu of the **Check Digit** input field and select the option **NONE**.
5. To add a check digit to the barcode, access the down-down menu of the **Check Digit** input field and select the option of your choice.
6. Enter the acronym 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.

If you, for instance, wish to add an ***** at the beginning and at the end, enter the information into the input field as follows: **K***...**K***. The **K** stands for “Konstante” - constant; the asterisks would be repeated for every end label.

7. If you do not wish to encode the barcode, access the down-down menu of the **Barcode Encoding** input field and select the option **NONE**.
8. To encode the barcode, access the down-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. 216*).
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. 222*).

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 add standard text on the end label which will be repeated on all end labels (`Static Text`).

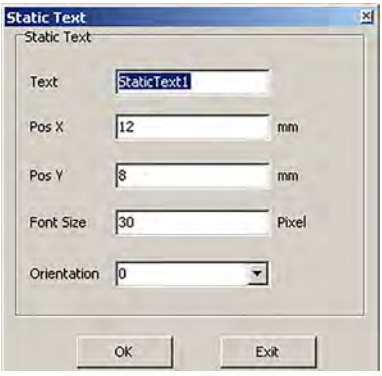
To create standard text:

1. Tap 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. 187: Creating standard text



3. Enter the desired text into the **Text** input field.
4. Adjust the desired default settings (📖 *p. 216*).
5. Tap **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.

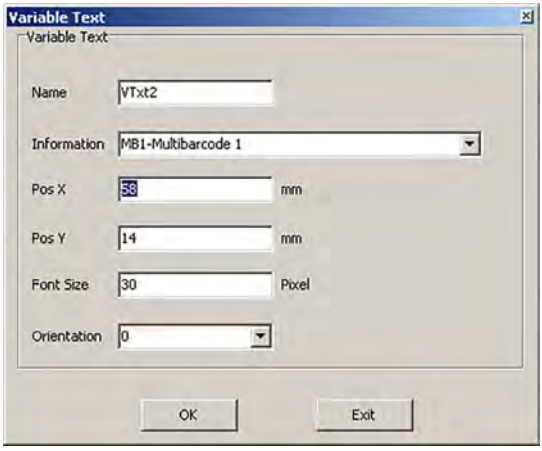
To create variable text on the end label:

1. Tap 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. 188: 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. 216*).
6. Tap **OK** to save.

5.21.11 Inserting a graphic

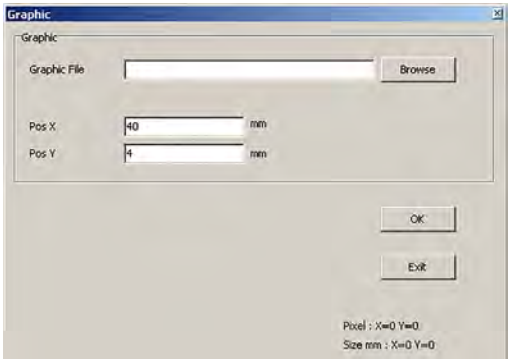
To insert a graphic:

1. Tap 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:

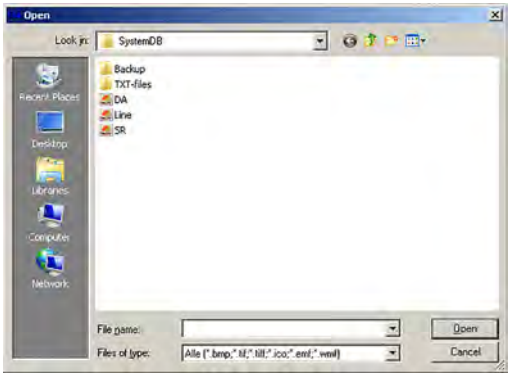
Fig. 189: Inserting a graphic (1)



3. To select a **bmp** file, click on the **Graphic File** input field.

↳ The display switches to:

Fig. 190: Inserting a graphic (2)



4. Select the desired **bmp** file.
5. Tap **Open** to confirm.
6. Adjust the desired default settings (📖 *p. 216*).
7. Tap **OK** to save.

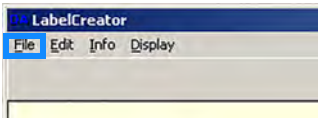
5.21.12 Saving a label script file

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. 112*).

Important

Save the new end label first before closing the `Label Creator`. Otherwise, all data will be lost.

Fig. 191: Saving a label script file (1)

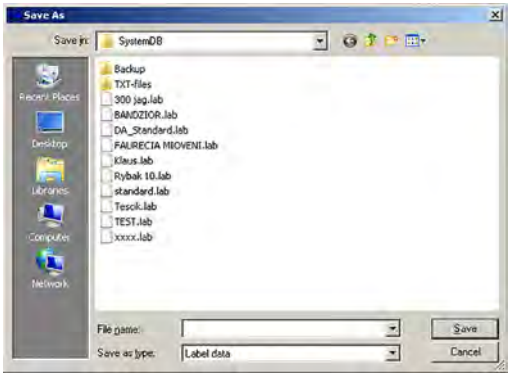


To save a label script file:

1. Click on the `File` menu item.
2. Select `Save as`.

↳ The display switches to:

Fig. 192: 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 on 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*
- *Time*
- *Barcode on printed label*
- *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*
- *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. 196*).

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*:

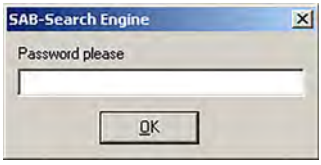
1. Log in with security level **2** (📖 *p. 88*).
2. To access the Windows user interface, press the Windows button on the keyboard.

Information
To access the Windows user interface without using the keyboard, exit the program, (📖 *p. 209*).

3. Open Windows Explorer.
4. Access the directory *c:SabSoft* and open the additional program *SABSearch*.

↳ The display switches to:

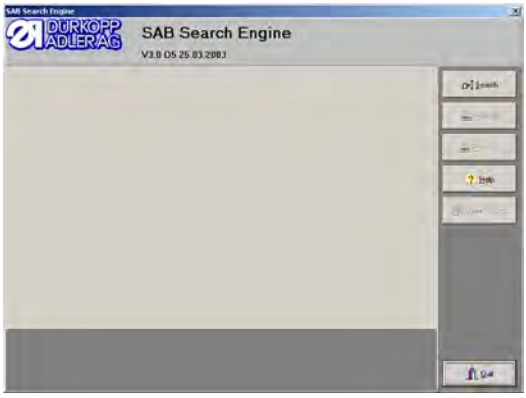
Fig. 193: Performing a search (example) (1)



5. Enter the password (📖 *p. 230*).

↳ The display switches to:

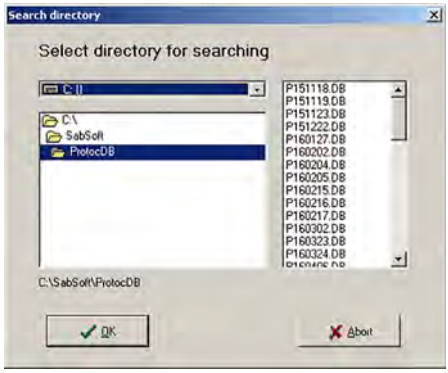
Fig. 194: Performing a search (example) (2)



6. Click on the **Search** button.

↳ The display switches to:

Fig. 195: 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 storage locations of the stored protocol databases.
9. Confirm with **OK**.

↳ The display switches to:

Fig. 196: 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. 197: 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. 198: Performing a search (example) (6)



↳ The program 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:

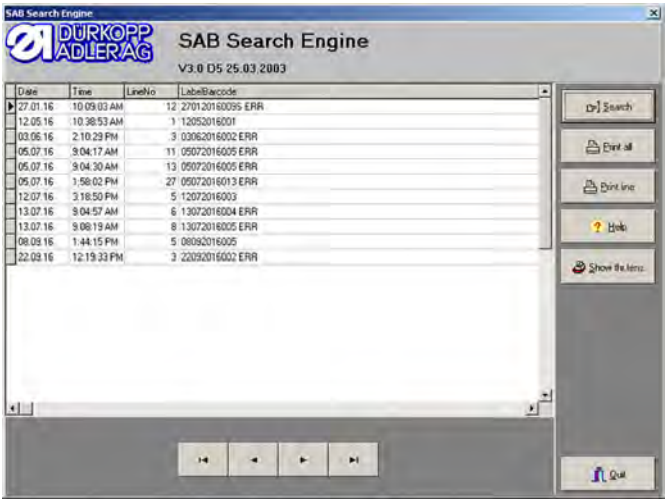
Fig. 199: Performing a search (example) (7)



↳ This search produced 11 protocol files that document the sewing of the sewing material by a specific user.

5.22.2 Exiting *SABSearch*

Fig. 200: Exiting SABSearch (1)

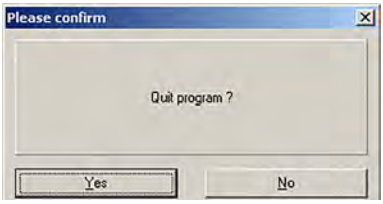


To exit the additional program SABSearch:

1. Click on the **Quit** button.

   ↳ The display switches to:

Fig. 201: Exiting SABSearch (2)



2. Confirm with **Yes**.

6 Maintenance

WARNING



Risk of injury from sharp parts!

Punctures and cutting possible.

Switch the machine off prior to any maintenance work.

WARNING



Risk of injury from moving parts!

Crushing possible.

Switch the machine off prior to any maintenance work.

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 interval

Work to be carried out	Operating hours			
	8	40	160	500
Machine head				
Remove lint and thread remnants.	●			
Direct drive				
Clean the motor fan mesh	●			
Sewing motor				
Clean the motor fan mesh.	●			

Work to be carried out	Operating hours			
	8	40	160	500
Check state and tension of the toothed belt. You must be able to deflect the toothed belt in the center by approx. 10 mm using your finger.			●	
Pneumatic system				
Check the water level in the pressure controller.		●		
Clean the filter element.				●
Check the tightness of the system.				●

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!

Lint and thread remnants 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. 202: Cleaning



(1) - Throat plate
(2) - Hook
(3) - Remaining thread monitor

To clean the area around the hook:

1. Remove any lint and thread remnants using the compressed air gun.
   Clean the following areas thoroughly:
   - area under the throat plate (1)
   - area around the hook (2)
   - bobbin case
   - thread cutter
   - area around the needle
   - remaining thread monitor (3)

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:

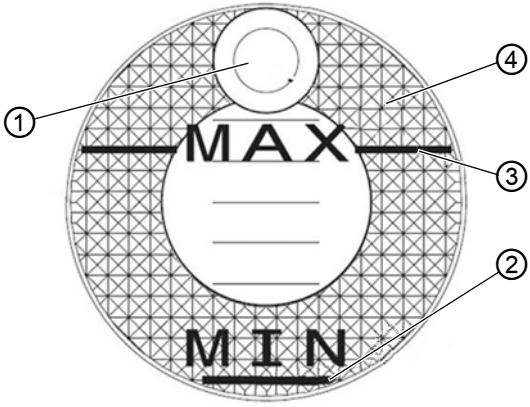
- Viscosity at 40 °C:10 mm^2/s
- Flash point: 150 °C

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

As soon as the oil level falls below the minimum level marking (2), the oil level indicator (4) lights up red.

Fig. 203: Lubricating



(1) - Filler hole
(2) - Minimum level marking
(3) - Maximum level marking
(4) - Oil level indicator

To top off the oil reservoir:

1. Fill oil through the filler hole (1) to a maximum of 2 mm below the maximum level marking (3).

   As soon as the sensor has detected that the oil level is above the minimum level marking (2) again, the red oil level indicator will turn off (4).

6.3 Servicing the pneumatic system

6.3.1 Setting the operating pressure

NOTICE

Property damage from incorrect setting!

Incorrect operating pressure can result in damage to the machine.

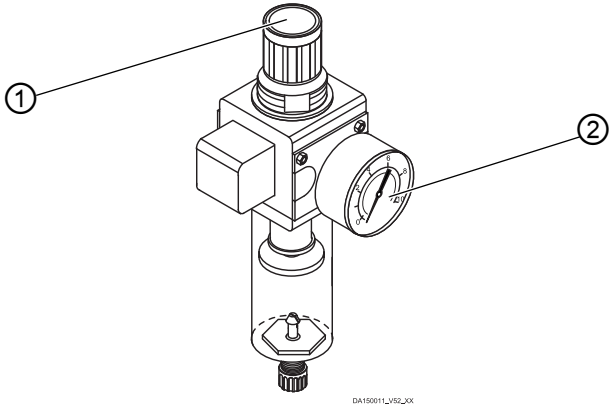
Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical data** (📖 *p. 277*) 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. 204: Setting the operating pressure



(1) - Pressure controller *(2) - Pressure gage*

To set the operating pressure:

1. Pull the pressure controller (1) up.

2. Turn the pressure controller until the pressure gage (2) indicates the proper setting:
   - Increase pressure: turn clockwise
   - Reduce pressure: turn counterclockwise
3. Push the pressure controller (1) down.

6.3.2 Draining the water condensation

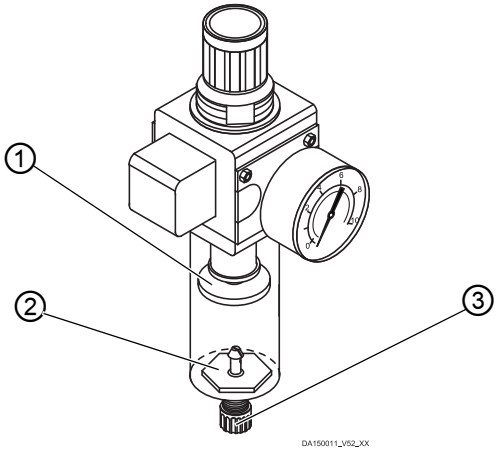
NOTICE

Property damage from excess water!

Excess water can cause damage to the machine.

Drain water as required.

Fig. 205: Draining the water condensation



(1) - Filter element
(2) - Water separator
(3) - Drain screw

Water condensation accumulates in the water separator (2) of the pressure controller.

Proper setting

Water condensation must not rise up to the level of the filter element (1).

Check the water level in the water separator (2) on a daily basis.

To drain water condensation:



1. Disconnect the machine from the compressed air supply.
2. Place the collection tray under the drain screw (3).
3. Loosen the drain screw (3) completely.
4. Allow water to drain into the collection tray.
5. Tighten the drain screw (3).
6. Connect the machine to the compressed air supply.

6.3.3 Cleaning the filter element

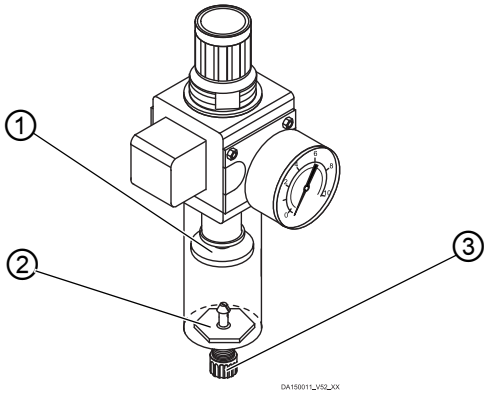
NOTICE

Damage to the paintwork from solvent-based cleaners!

Solvent-based cleaners can damage the filter.

Use only solvent-free cleaners for washing out the filter tray.

Fig. 206: Cleaning the filter element



(1) - Filter element
(2) - Water separator
(3) - Drain screw

To clean the filter element:

1. Disconnect the machine from the compressed air supply.
2. Drain the water condensation (📖 *p. 243*).
3. Loosen the water separator (2).
4. Loosen the filter element (1).
5. Blow out the filter element (1) using a compressed air gun.
6. Wash out the filter tray using benzine.
7. Tighten the filter element (1).
8. Tighten the water separator (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 Removing the transport locks

1. Prior to setup, remove all transport locks including lashing straps, Styrofoam and cardboard pieces, safety clips and wooden blocks:
   - at the machine head
   - at the table
   - at the stand

7.3 Assembling the reel stand

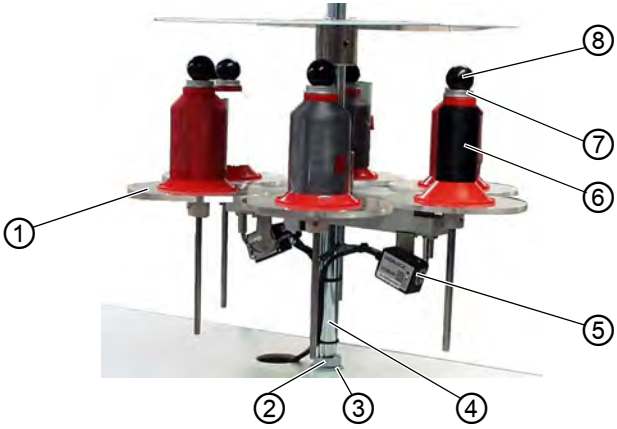
WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

Turn off the main switch and do not thread the needle and hook thread unless the machine is switched off.

Fig. 207: Assembling the reel stand



(1) - Thread reel holder (6 pcs)
(2) - Nut (2 pcs)
(3) - Flat washer (2 pcs)
(4) - Reel stand tube
(5) - Barcode scanner for needle/ hook thread (optional)
(6) - Thread reel (needle/hook thread)
(7) - Washer
(8) - Ball

To protect it during transport, the thread reel does not come fully assembled to the tabletop.

To assemble the reel stand:

1. Place the flat washer (3) onto the hole in the tabletop.
2. Screw in the nut (2) until reaching the end of the thread found at the end of the reel stand tube (4).

3. Slip the reel stand tube (4) through the flat washer (3) and the hole in the tabletop.
4. Slide the second flat washer (3) onto the thread at the end of the reel stand tube (4).
5. Screw the second nut (2) onto the thread at the end of the reel stand tube (4).

↳ The reel stand is now assembled to the tabletop.

6. Align both thread guides (9) directly above two thread reel holders (1).
7. To insert a thread reel (6), loosen ball (8) and washer (7).
8. Fit the thread reel (6) on a thread reel holder (1).

↳ If a barcode scanner has been assembled for the needle thread and hook thread reels (5), align the needle/hook thread reels such that both of them can be scanned.

9. Tighten washer (6) and ball (7) again in reverse order.

↳ Needle/hook thread can now be threaded (📖 *p. 31*, and 📖 *p. 40*).

7.4 Setting 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

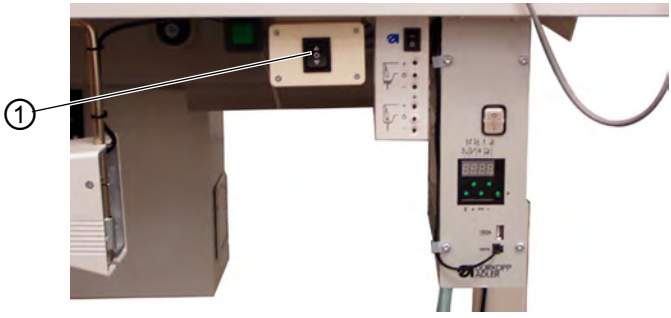


Risk of musculoskeletal damage from incorrect setting!

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.

Fig. 208: Setting the working height



(1) - Button

The working height can be adjusted between 685 mm and 1085 mm (measured to the upper edge of the tabletop).

The working height has been set to 790 mm at the factory.

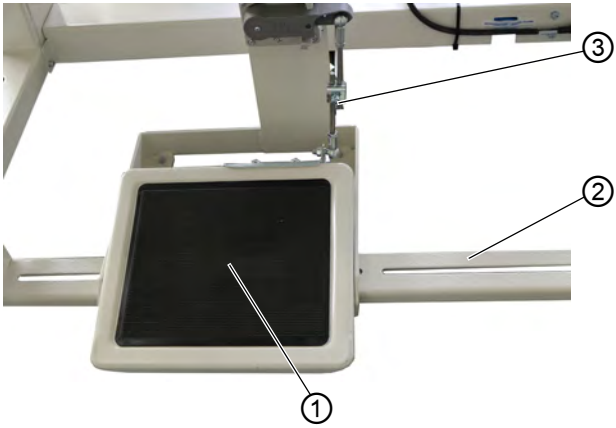
To set the working height:

1. To set the working height, press button (1).
   - Set higher: press the upper part of the button (1)
   - Set lower: press the lower part of the button (1)

   The working height will change for as long as the button (1) is depressed.

7.5 Setting the pedal

Fig. 209: Setting the pedal (1)



(1) - Pedal
(2) - Cross strut
(3) - Screw

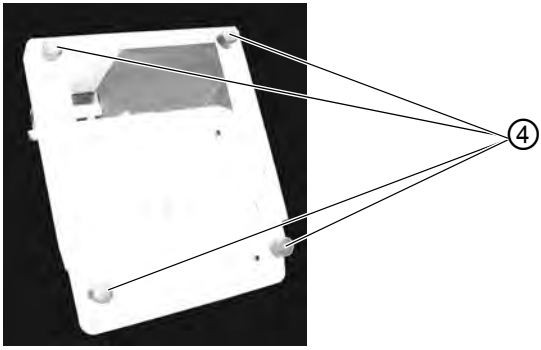
The pedal (1) must be tilted to a degree that allows the user to move the pedal forward and backward without a problem.

To set the pedal properly:

1. Loosen the screw (3).
2. Adjust 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. 210: Setting 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 Assembling the control panel

Fig. 211: Assembling the control panel



(1) - Control panel
(2) - Screw (not visible)
(3) - Column

To assemble the control panel:

1. Place the control panel (1) on the column (3).
2. Tighten the control panel (1) using the four screws (2).

7.7 Electrical connection

DANGER

Risk of death from live components!

Unprotected contact with electricity can result in serious injuries or death.

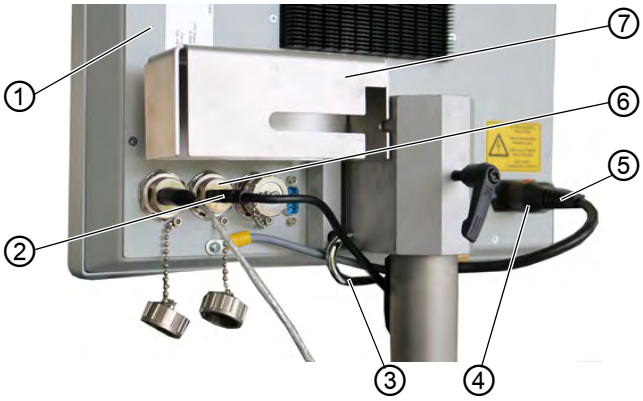
Only qualified specialists may perform work on electrical equipment.

Important

The voltage on the type plate of the sewing motor must correspond to the mains voltage.

7.8 Connecting the control panel

Fig. 212: Connecting the control panel



(1) - Control panel
(2) - USB connector
(3) - Lock
(4) - Locking bracket (not visible)
(5) - Power plug
(6) - Socket
(7) - Cover

To connect the control panel:

1. Insert the power plug (5) at the control panel (1) and secure it with the locking bracket (4).
2. Insert the USB connector (2) at the center socket (6).
3. Fold down the cover (7).
4. Secure the control panel (1) and the cover (7) using the lock (3).

7.9 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 setting!

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.

7.9.1 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”.

7.9.2 Setting the operating pressure

NOTICE

Property damage from incorrect setting!

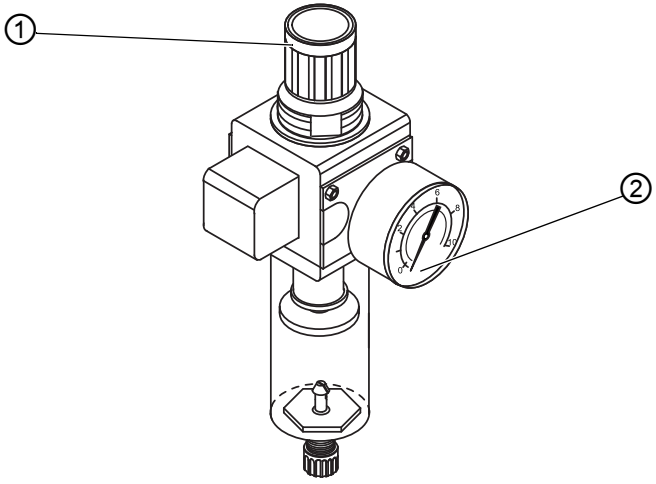
Incorrect operating pressure can result in damage to the machine.

Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical data** (*p. 277*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than ± 0.5 bar.

Fig. 213: Setting the operating pressure



(1) - Pressure controller *(2) - Pressure gage*

To set the operating pressure:

1. Pull the pressure controller (1) up.
2. Turn the pressure controller until the pressure gage (2) indicates the proper setting:
   - Increase pressure: turn clockwise
   - Reduce pressure: turn counterclockwise
3. Push the pressure controller (1) down.

7.10 Lubricating

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.

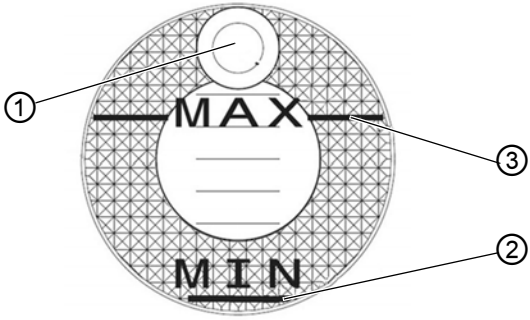
NOTICE

Machine damage possible due to 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. 214: Lubricating



(1) - Filler hole
(2) - Minimum level marking
(3) - Maximum level marking

To top off the oil reservoir:

1. Fill oil through the filler hole (1) to a maximum of 2 mm below the maximum level marking (3).

Oil to be used:

NOTICE

Machine damage possible due to incorrect oil.
An incorrect oil type can cause damage to the machine.
Only use oil specified in the operating instructions.

CAUTION



Risk of pollution from oil.
Oil is a pollutant and must not enter the sewage system or the soil.
Collect waste oil carefully and dispose of it and oily machine parts in accordance with the applicable statutory regulations.

Only DA 10 or equivalent oil should be used for the machine, which has the following properties:

- Viscosity at 40 °C: 10 mm²/s
- Flash point: 150 °C

7.11 Putting the machine into operation

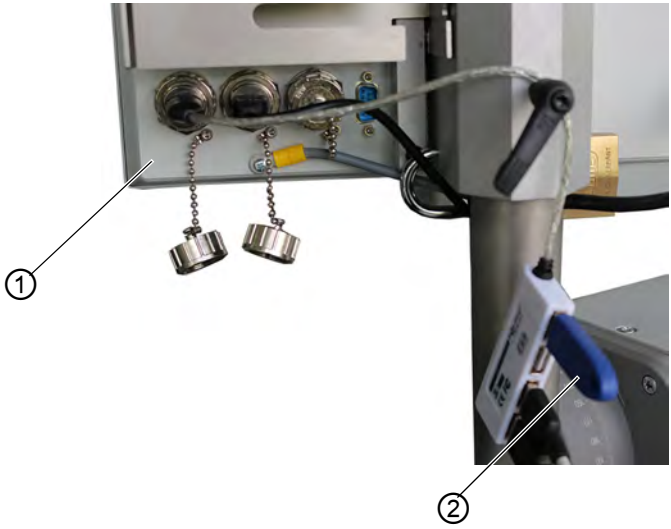
NOTICE

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) (📖 *p. 140*).

Fig. 215: Putting the machine into operation



(1) - Control panel *(2) - Dongle*

To put the machine into operation for the first time:

1. Plug the dongle (2) into a USB port of the control panel (1).
2. Log in with security level **2** (📖 *p. 88*).
3. Confirm with **OK**.

7.12 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.

NOTICE

Property damage may occur!

Damage to the sewing material and the machine itself 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).

When setup is complete, perform a test run to check the functionality of the machine.

Information

The test function is intended exclusively for qualified specialists with security level **2** (e.g. technicians).
Here, the machine / the sewing process can be tested without the need to scan barcodes.

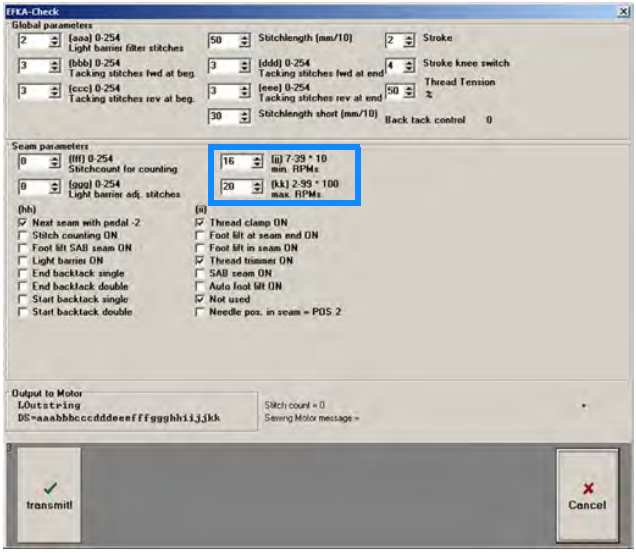
To perform a test run:

1. Log in with security level **2** (📖 *p. 88*).
2. Check if the proper sewing equipment has been set (📖 *p. 140*).
3. Insert the bobbin (📖 *p. 37*).
4. Thread hook thread (📖 *p. 40*).
5. Thread needle thread (📖 *p. 31*).
6. Select the sewing material.

7. Open the `Setup` display (📖 *p. 139*).
8. Tap the **Sewing motor** button.

↳ The display switches to:

Fig. 216: Performing a test run



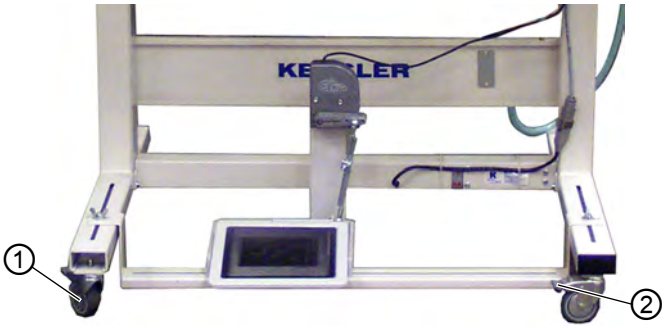
9. Perform a test run, first at low speed and then at continually increasing speeds.
10. Check that the seams conform to the desired requirements.

Information

Change the needle thread tensions if the requirements are not satisfied (📖 *p. 43*). If necessary, also check the settings listed in the 📖 *Service Instructions* and correct them as required.

7.13 Transporting the machine in house

Fig. 217: Transporting the machine in house (1)



(1) - Wheel *(2) - Brake*

Fig. 218: Transporting the machine in house (2)



(1) - Wheel *(2) - Brake*

For in-house transport the stand can be equipped with four casters.

To transport the machine inside the building:

1. Decommission the machine (📖 *p. 263*).
2. Loosen all brakes (2) on the casters (1).

   The machine is ready for transport.
3. Carefully reposition the machine.
4. Re-engage all brakes (2) when transport is complete.

8 Decommissioning

8.1 Decommissioning the machine

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.

8.2 Transporting the machine

NOTICE

Property damage may occur!

Damage to the machine if transported without the transport locks.

Do not transport the machine unless the transport locks have been fitted.

To transport the machine safely:



1. Decommission the machine (📖 *p. 263*).
2. Assemble the transport locks in reverse order from setup (📖 *p. 247*).
3. Transport the machine only in the upright position and only in such a way that it cannot tip over.

9 Disposal

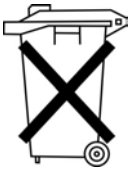
CAUTION



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.

Dispose of the machine 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 AG

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

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 📖 *p. 23*
Please cut thread Please press the pedal forward	The sewing process is completed, and the thread cutter 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. 📖 *p. 23*
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 barcode of a piece to be sewn has been scanned and released	Sew the piece.
??? ? Bobbin no. unknown	Bobbin no. not detected correctly or incorrect	Scan bobbin barcode. 📖 *p. 23*

Information message	Description	Remedial action
Protocol file not existing	The database cannot be viewed as no sewing process has yet taken place and, thus, no protocol file exists yet	Tap 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.	Tap the **OK** button. Display is closed.

10.2.2 Error messages

The machine may indicate the following error messages:

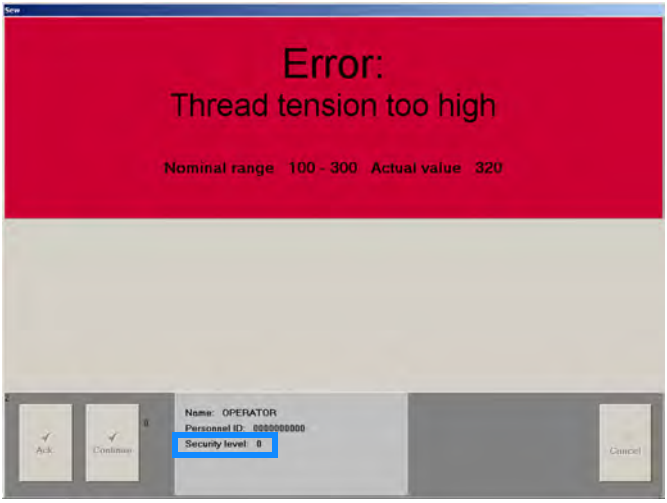
Error messages	Description	Remedial action
EC10000	Error has been acknowledged by the user	
EC20000		Check thread tension, not used at the moment
EC21000	Forced thread cutting in a documented seam section	
EC21500	Wrong error message received from Efka motor	
EC21600	Wrong hook thread message received from Efka motor	
EC22000	Forced tacking in a documented seam section	

Error messages	Description	Remedial action
EC22500	Bad tacking in the seam	
EC22600	Wrong stitch counting motor and PC	
EC23000	Thread breakage in a documented seam section	
EC23500	Thread tension too low in a documented seam section	
EC23600	Thread tension too high in a documented seam section	
EC25000	Thread breakage in free seam section	
EC25500	Thread tension too low in free seam section	
EC25600	Thread tension too high in free seam section	
EC26000	Additional barcode label not read	
EC27000	Hardware error, sewing motor DA82 not responding	
EC27500	Hardware error, thread tension sensor not responding	
EC28000	Allowed stitch count below target range	
EC29000	Allowed stitch count above target range	

Error messages	Description	Remedial action
EC31000	Could not read barcode on printed label with hand scanner by user	
EC31500	Wrong end label was sewn	Check correct end label
EC32000	Bobbin with impermissible thread inserted	Insert a bobbin with the appropriate thread.
EC33000	Printer not ready	
ECXXXXXACK	User confirmed error XXX	
ECXXXXXCNT	User released further processing despite error message XXX	

10.2.3 Editing error messages

Fig. 219: Editing error messages (1)



The sewing process stops as soon as an error message appears (📖 *p. 267*).

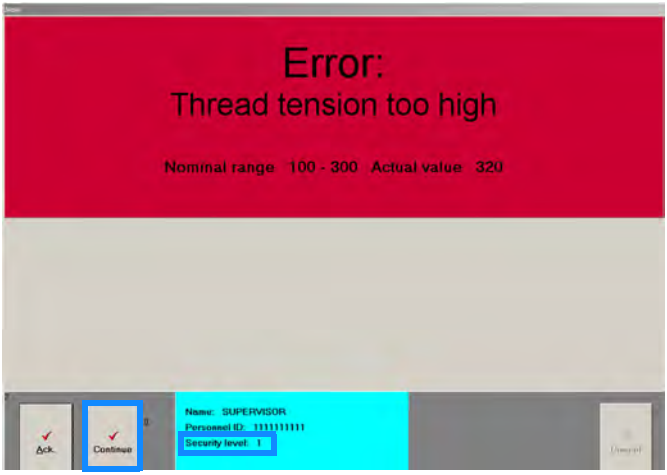
Users with security level **0** will only be able to cancel the sewing process. Users with security level **1** or **2** will be able to release or cancel the sewing process.

To edit an error message:

1. Log in with security level **1** or **2** (📖 *p. 88*).

↳ The display switches to:

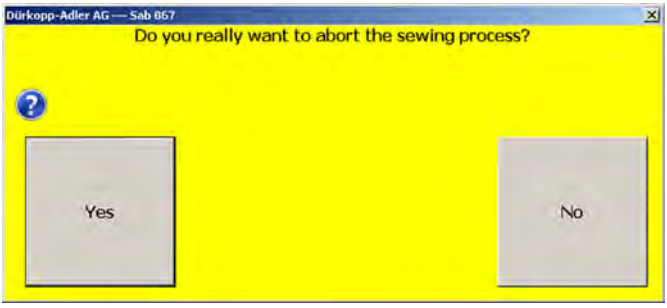
Fig. 220: Editing error messages (2)



2. Tap the **Continue** button.

↳ The display switches to:

Fig. 221: Editing error messages (3)



3. To cancel the sewing process, tap the **Yes** button.
4. To continue the sewing process, tap 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 (📖 *p. 75*).
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

The following general errors may occur on the machine / during sewing:

Errors in sewing process

Error	Possible causes	Remedial action
Unthreading at seam beginning	Needle thread tension is too firm	Check needle thread tension
Thread breaking	Needle thread and hook thread have not been threaded correctly	Check threading path 📖 *p. 41*
	Needle is bent or sharp-edged	Replace the needle 📖 *p. 26*
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar 📖 *p. 26*
	The thread used is unsuitable	Use recommended thread 📖 *p. 269*
	Thread tensions are too tight for the thread used	Check thread tensions
	Thread-guiding parts, such as thread tube, thread guide or thread take-up disk, are sharp-edged	Check threading path
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists

Error	Possible causes	Remedial action
Missing stitches	Needle thread and hook thread have not been threaded correctly	Check threading path 📖 *p. 41*
	Needle is blunt or bent	Replace the needle 📖 *p. 26*
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar 📖 *p. 26*
Missing stitches	The needle thickness used is unsuitable	Use recommended needle thickness 📖 *p. 277*
	The reel stand is installed incorrectly	Check the assembly of the reel stand 📖 *p. 248*
	Thread tensions are too tight	Check thread tensions
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists
Loose stitches	Thread tensions are not adjusted to the sewing material, the sewing material thickness or the thread used	Check thread tensions
	Needle thread and hook thread have not been threaded correctly	Check threading path 📖 *p. 41*
Needle breakage	Needle thickness is unsuitable for the sewing material or the thread	Use recommended needle thickness 📖 *p. 277*

11 Technical data

These instructions are intended to allow for an easier understanding of the machine and its intended application options.

Data and characteristic values

Technical data	Unit	Class
Machine type		Single-needle flatbed double lockstitch machine
Type of stitches		301/Double lockstitch
Hook type		Two-piece vertical hook (XXL)
Number of needles		1
Needle system		134-35
Needle strength	[Nm]	90-140
Thread strength - Cotton: - Synthetic sewing thread: - Core spun thread:	 [NeB] [Nm] [Nm]	 20/3 20/3 20/3
Bobbin capacity for synthetic sewing thread - 60/3:	[m]	98
Number of stitches (Depending on stitch length and stroke of the sewing feet) - maximum (when equipped with quick stroke function): - when delivered:	 [min] [min]	 3400 3400
Stitch length (depending on sewing equipment) Forward and backward:	[mm]	0-6 (9)
Maximum stroke of the alternating sewing feet:	[mm]	9
Maximum clearance under the sewing feet - Sewing: - Lifting:	 [mm] [mm]	 10 20

Technical data	Unit	Class
Remaining thread monitor:		RFW-20-7 (0867-590164)
Thread tension regulation:		BTSR sensor
Bobbin:		Special bobbin hole diameter. Depending on configuration: • with 3-digit bobbin number • with bobbin barcode
End label printer:		Thermal transfer printer
Sewing motor:		EFKA DC1550/DA321G with interface connecting to the PC
Mains voltage:	[V]	190-240
Mains frequency:	[Hz]	50/60
Supply pressure:	[bar]	8-10
Operating pressure:	[bar]	6
Air consumption per work cycle:	[NL]	approx. 0.7
Length:	[mm]	1600
Width:	[mm]	920
Height (including PC):	[mm]	1550
Total weight:	[kg]	approx. 194
Power input:	[kVA]	1

11.1 Characteristics

- Extra-large, two-piece vertical hook (XXL)
- The maximum clearance under the sewing feet is 20 mm
- The remaining thread length after the thread has been cut is approx. 7 mm on account of the short thread cutter.
- The safety clutch prevents the hook from shifting or becoming damaged in the event of thread jamming.
- Automatic wick lubrication with an inspection glass housed in the arm for lubricating the machine and the hook (📖 *p. 257*)
- Stitch length setting via step motor (📖 *p. 157*)
- Multi-position cylinder for adjusting the sewing foot stroke
- Quick stroke adjustment with automatic speed adjustment
- Electronically regulated needle thread tension (ETT) or mechanically regulated needle thread tension with electromagnetic tension lift
- Remaining thread monitor RFW 20-7
- Thread force sensor
- Motorized winder with automatic winding starter
- Special bobbin for preventing errors caused by inserting non-permitted bobbins
- Height-adjustable stand
- Monitoring of the throat plate slide during a bobbin change
- Sewing material feed with built-in fiber-optic light barrier for detecting a positive notch by the cut and an LED for detecting the seam area (tearing seam = red, free seam = green)
- Lockable top feed pressure
- End label printer (📖 *p. 179*)
- 15” industrial control panel
- Needle and hook thread reel monitoring via proximity switches
- Hand scanner
- Login system via hand scanner (📖 *p. 88*)
- Reel stand for 6 thread reels

11.2 Technical features of the software

- Intuitive user guidance
- Seams with up to 20 seam sections
- Seam section switch via notch detection, stitch counting or manual operation
- Option to save different setup and end label masks
- Teach-in function for ETT (electronically regulated needle thread tension)
- Test window for thread tension
- Display of the thread tension during sewing
- Detection of needle and hook thread via barcode scanner (if available as an option)
- Detection of sewing material piece 1 and/or piece 2 (or piece 3) via hand scanner
- All seam paths can be assigned with various parameters
- Automatic function suppression of the following parameters in the tearing seam
  - RS function (bartack via step motor)
  - HP function (pneumatic stroke adjustment)
  - FA function (thread cutter)
- Visual “Tearing seam” display in the user's field of vision (LED - red)
- Evaluation of the gathered sewing material data
- Monitoring and active regulation of the needle thread tension (ETT only (electronically regulated needle thread tension))
- Automatic thread breakage detection
- Deviations from the setpoints during the seam are detected and result in a sewing stop
- The sewer can interrupt the sewing process in the area of the side airbag seam.
  To do so, press the “FA” button while moving the pedal to position 2 at the same time.
  The seat is automatically reported as “not OK”.
- Once the last seam path is completed, all sewing parameters are stored, bringing up the prompt to scan the next barcode parts primary.
- Data recording in a database or ASCII file
- Different security levels for operator, supervisor and production manager
- Data is saved even in the event of a power outage thanks to a UPS (uninterrupted power supply)

11.3 Data recording

The following data is recorded and saved for each tearing seam in a protocol file and a protocol database, respectively.

- Date
- Time
- Line number
- End label barcode
- Barcode parts primary 1-3
- Barcode used needle thread
- Barcode used bobbin thread
- Additional barcode information (max. 9)
- Bobbin number
- Bobbin winding information
- Bobbin loading information
- User name
- Number of seam sections
- Adjusted stitch length per seam section
- Absolute seam section length
- Calculated stitch length
- Thread tension window
- Stitch count
- Seam record set name
- Machine number
- Manufacturer code
- Time for this cycle
- Error code
- Cycle number
- Thread tension single stitch data
- Daily part no.

12 Appendix

Fig. 222: Wiring diagram (1)

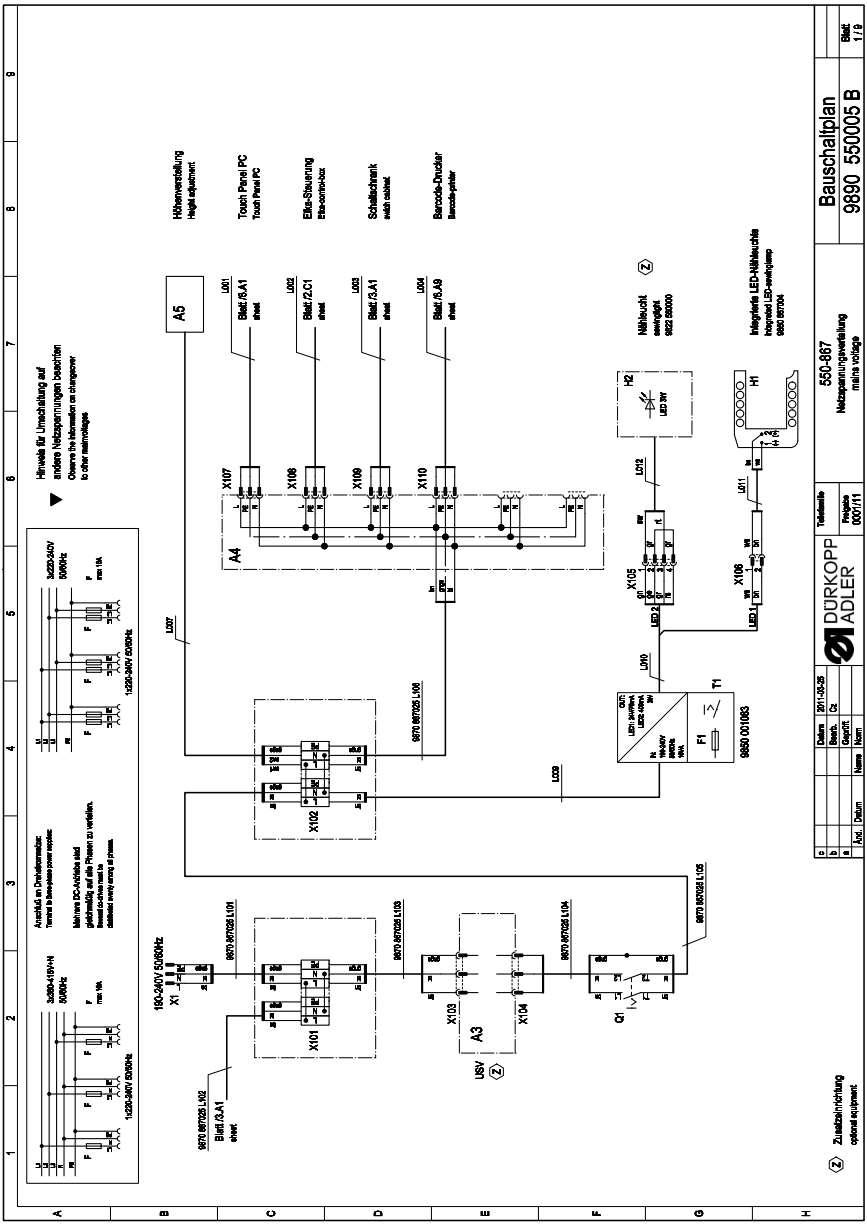


Fig. 223: Wiring diagram (2)

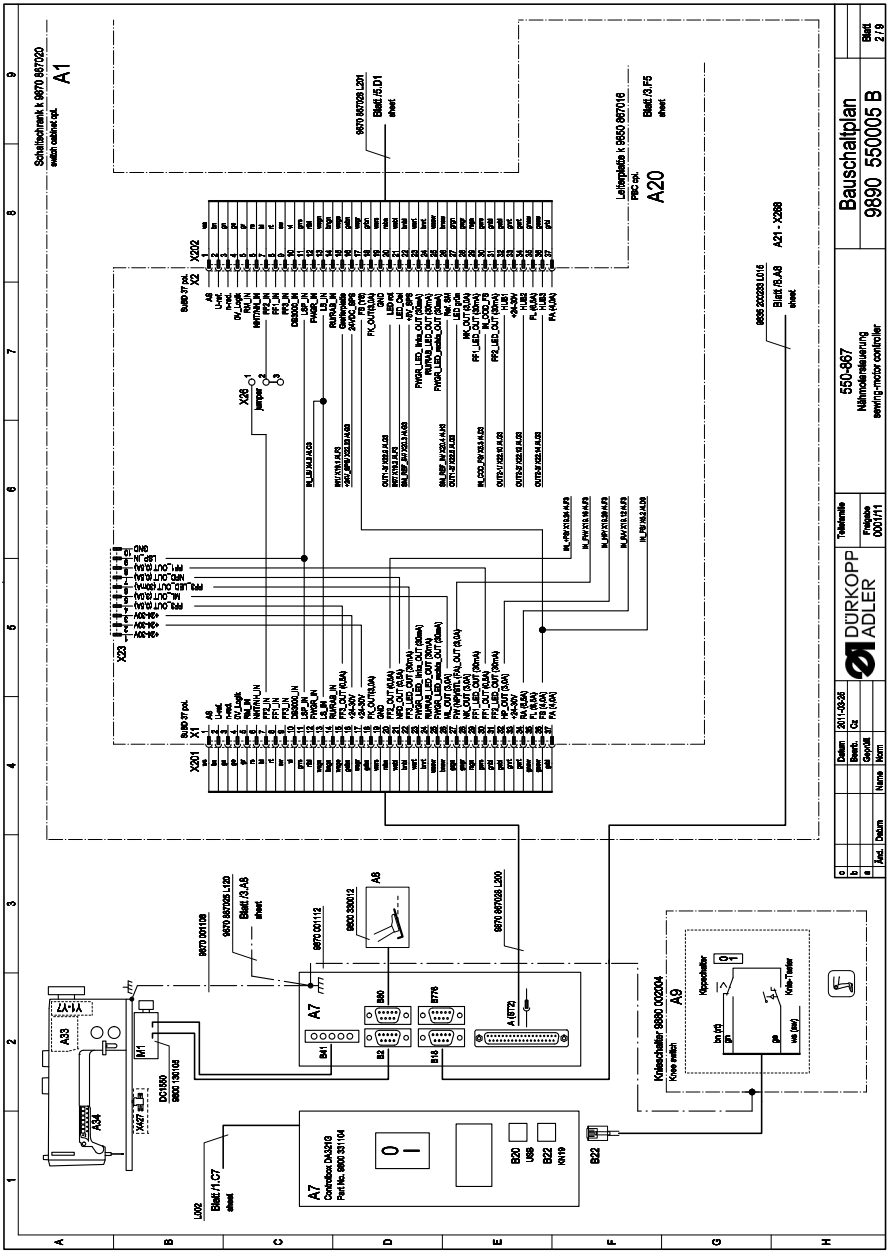


Fig. 224: Wiring diagram (3)

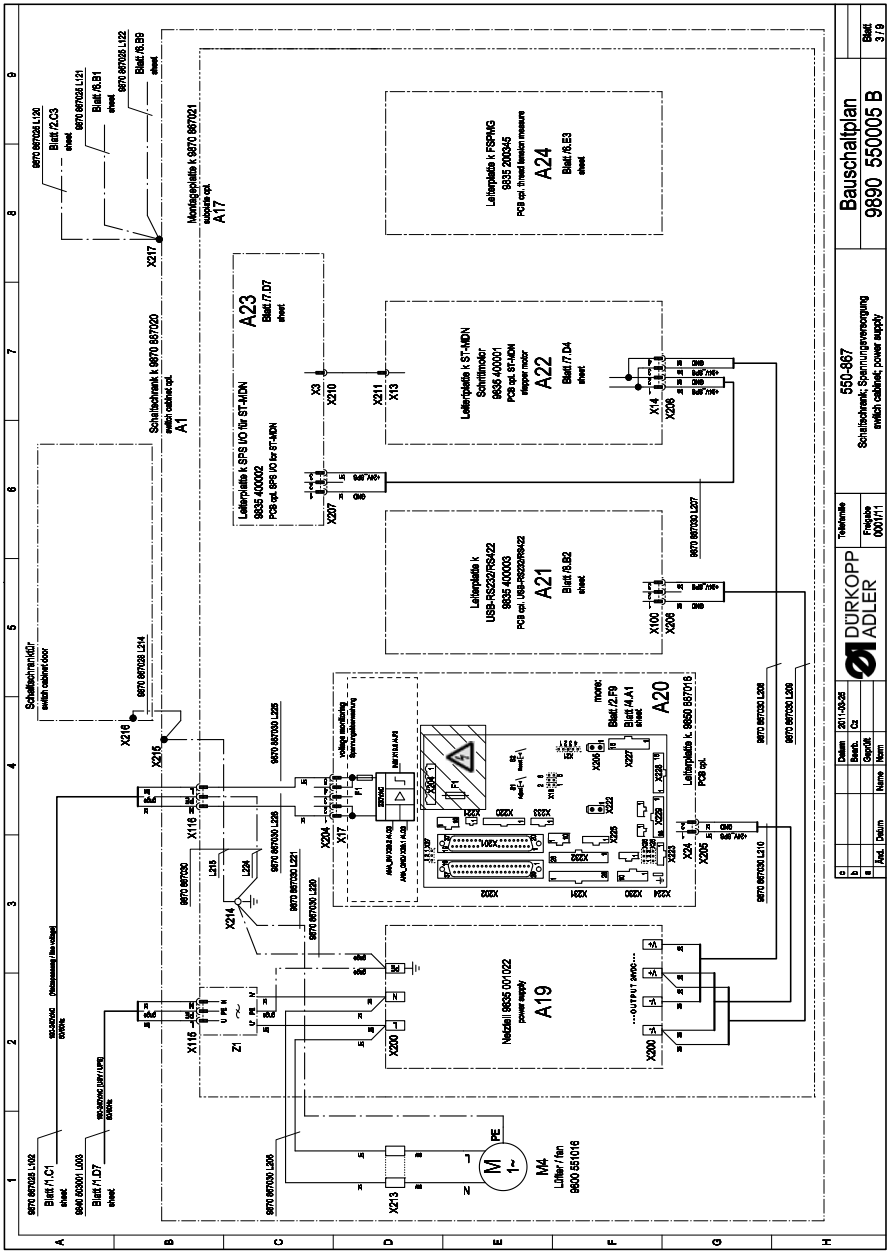


Fig. 225: Wiring diagram (4)

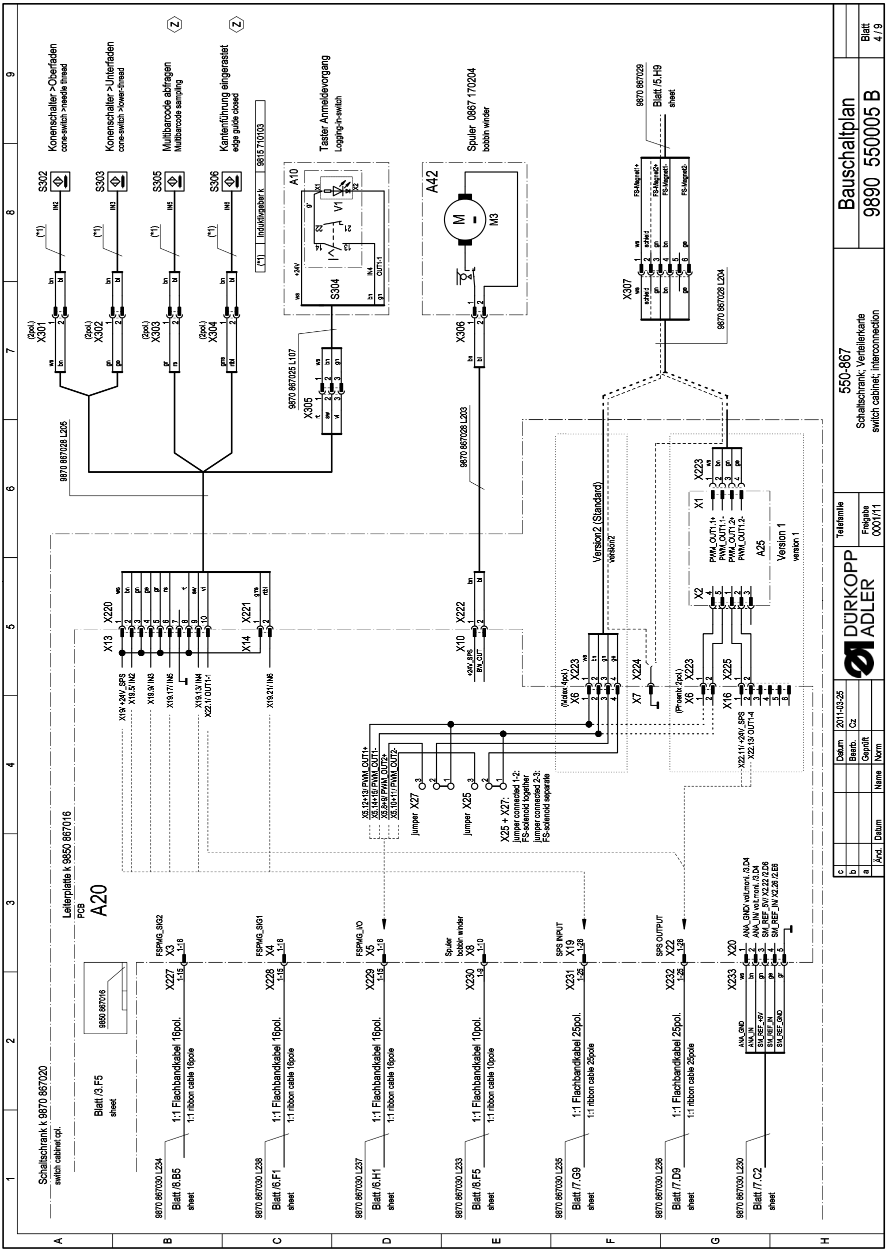


Fig. 226: Wiring diagram (5)

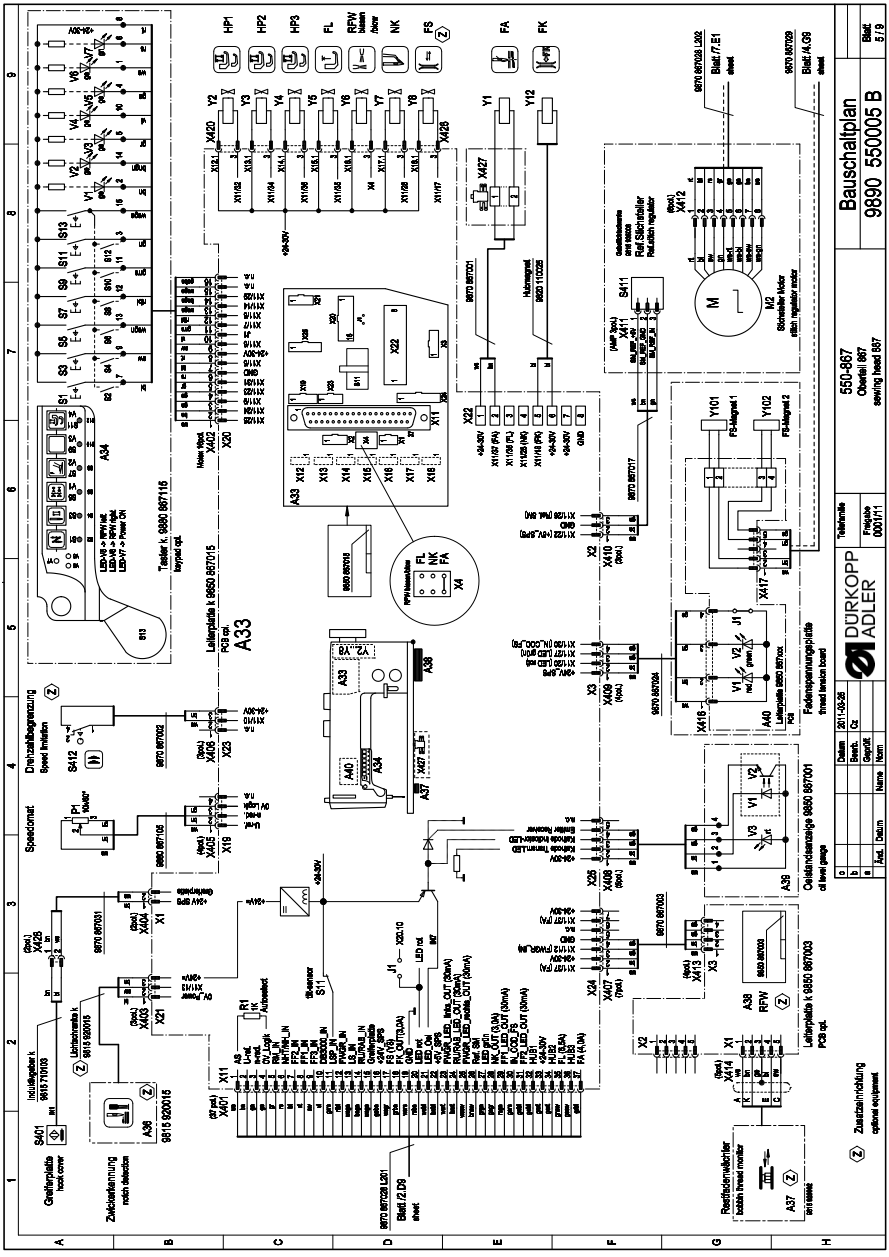


Fig. 227: Wiring diagram (6)

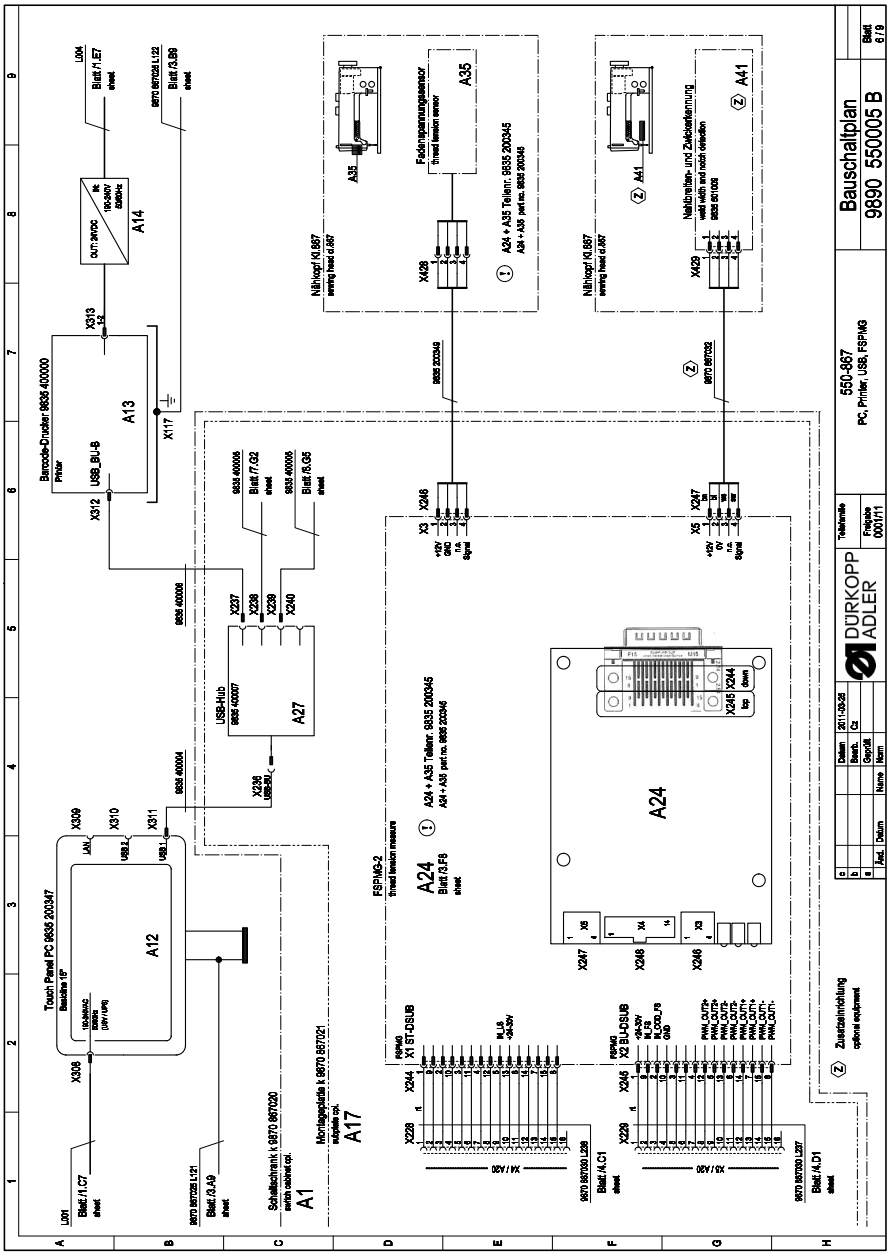


Fig. 228: Wiring diagram (7)

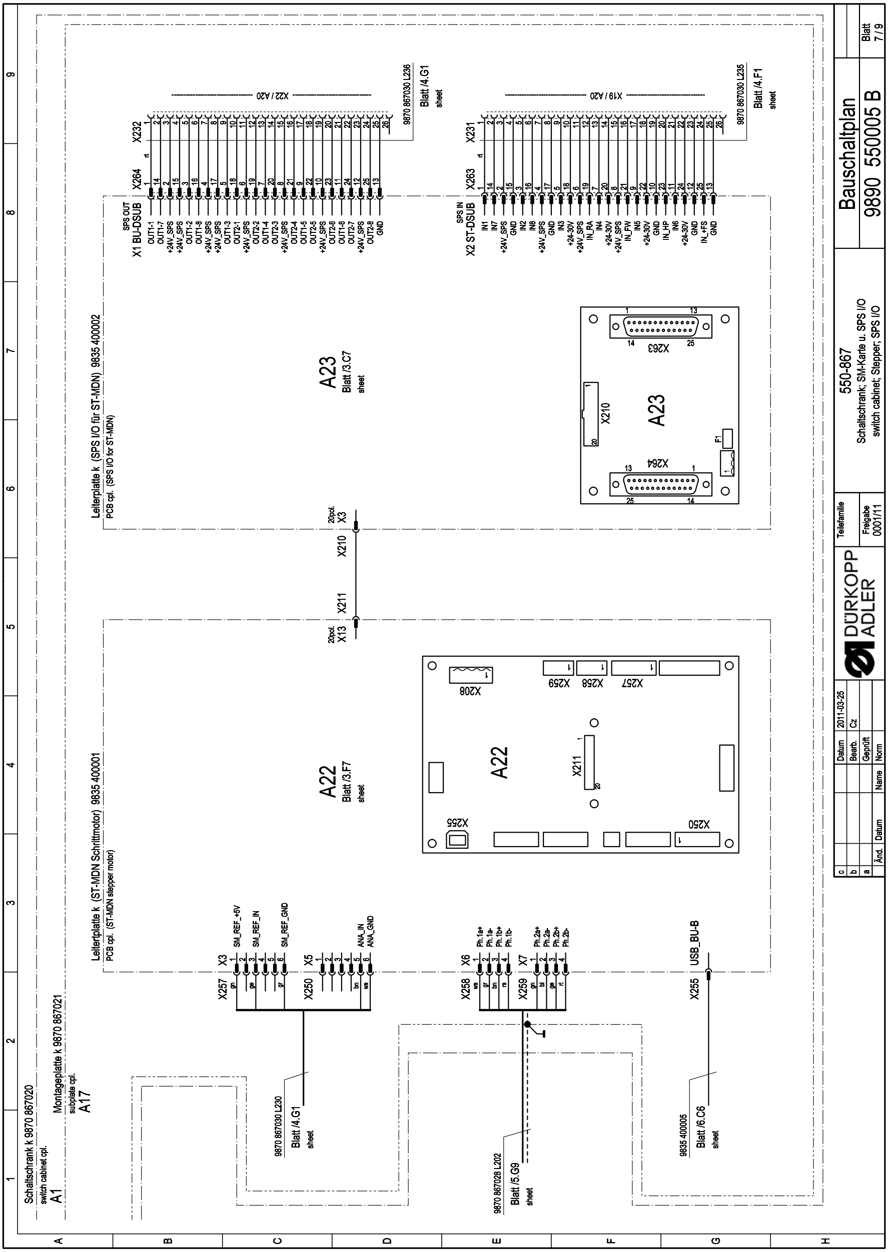


Fig. 229: Wiring diagram (8)

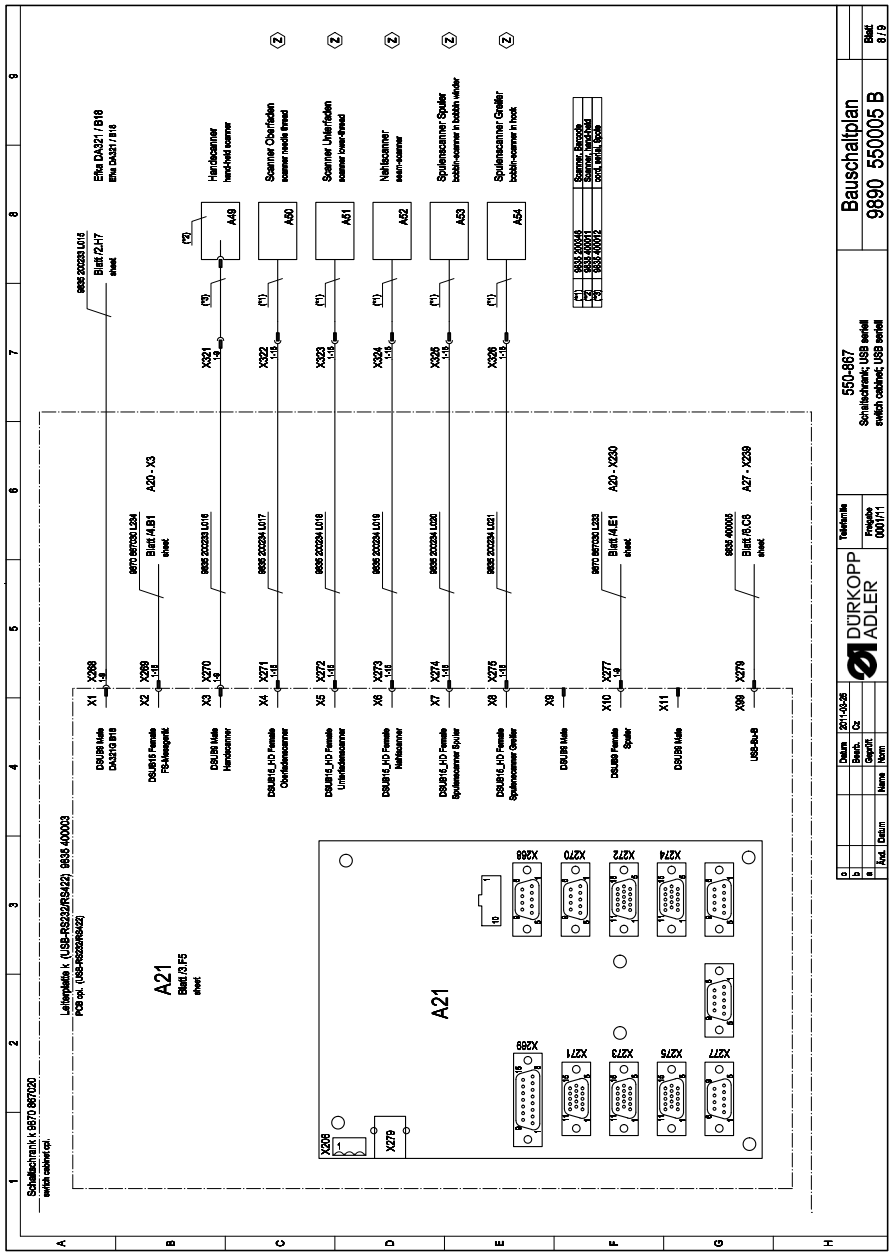
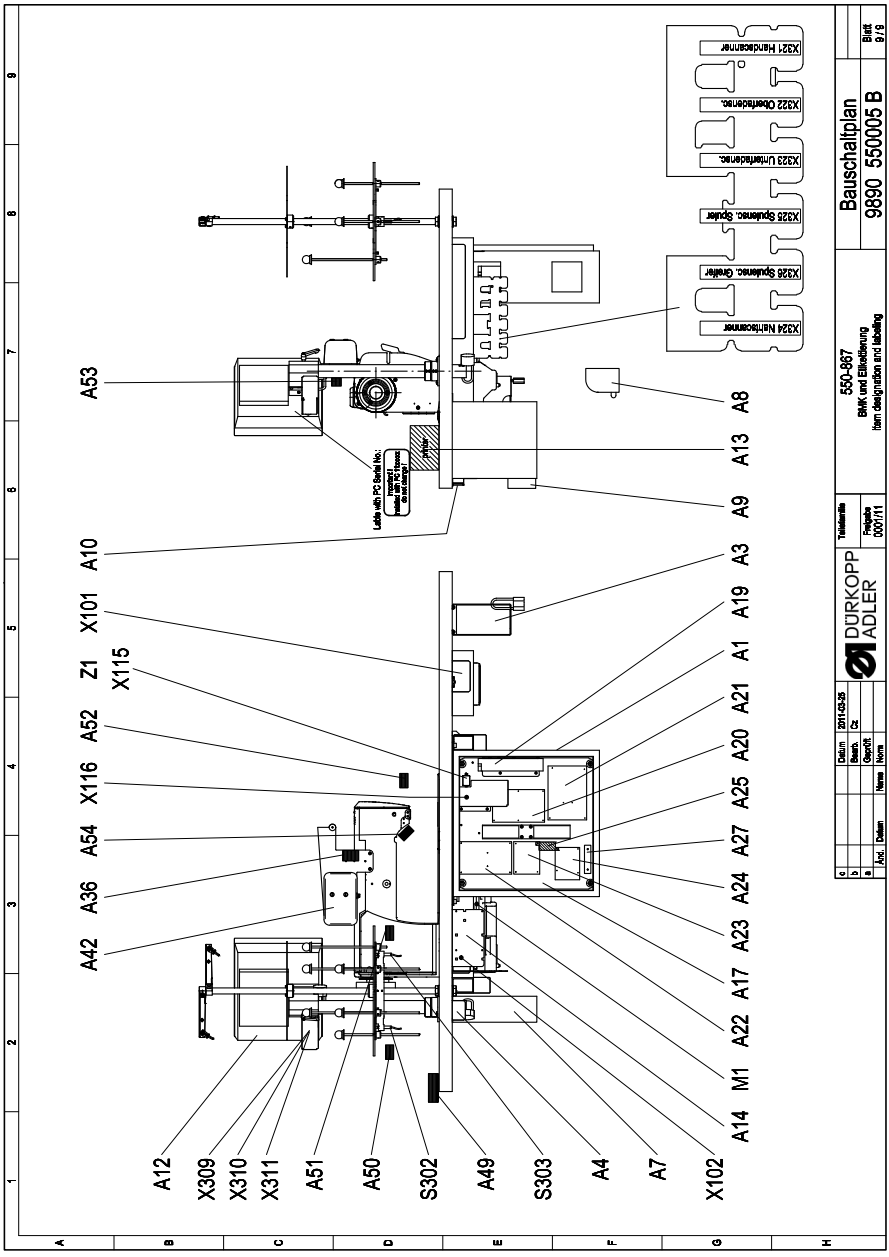


Fig. 230: Wiring diagram (9)



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Subject to design changes - Part of the machines shown with additional equipment - Printed in Germany
© Dürkopp Adler AG - Original Instructions - 0791 550740 EN - 00.0 - 11/2016