DÜRKOPP ADLER

171 / 173

Operating Instructions

IMPORTANT

READ CAREFULLY BEFORE USE

KEEP FOR FUTURE REFERENCE

1 About these instructions

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

Should you notice any discrepancies or if you have improvement requests, then we would be glad to receive your feedback through **Customer Service** (📖 *p. 95*).

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. 19*) is important for the operators.
- Specialists:
  This group has the appropriate technical training for performing maintenance or repairing malfunctions. Specifically, the chapter **Setup** (📖 *p. 71*) 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. 9*).

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. 9*).

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 / put the machine in operation
- 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.

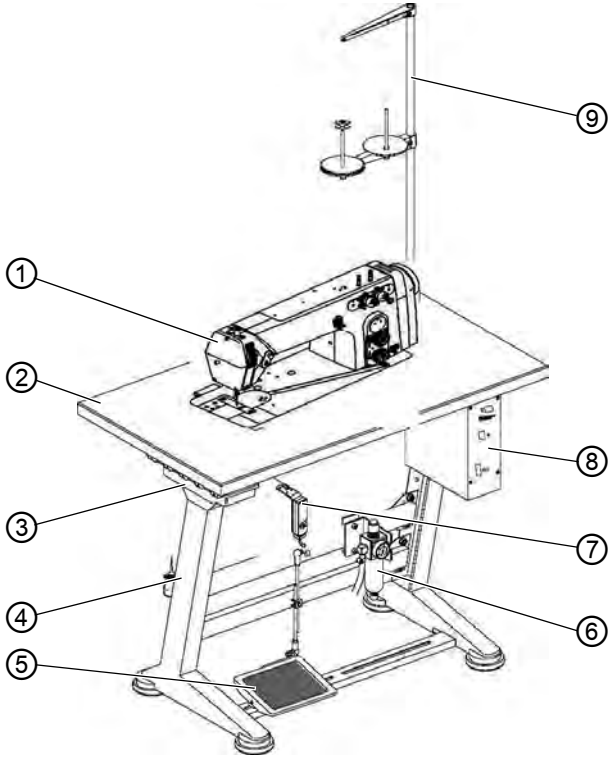
Measures for avoiding the danger.

↳ 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

Fig. 1: Components of the machine



(1) - Machine head
(2) - Table top
(3) - Drawer
(4) - Stand
(5) - Pedal
(6) - Maintenance unit
(7) - Setpoint device
(8) - Control
(9) - Reel stand

3.2 Proper use

WARNING

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

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

Follow all instructions provided.

NOTICE

Non-observance will lead to property damage!

Improper use can result in material damage at the machine.

Follow all instructions provided.

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

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

The needle thicknesses permissible for the machine are listed in the **Technical data** (📖 *p. 99*) chapter.

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

The machine is intended for industrial use.

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

Only authorized persons may work on the machine.

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

3.3 Declaration of Conformity

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

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4 Operation

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

4.1 Preparing the machine for operation

WARNING

Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

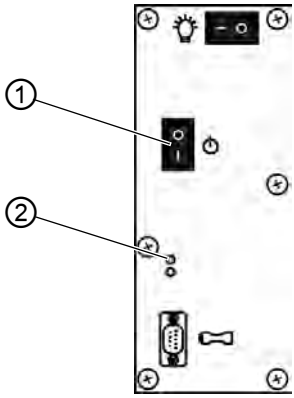
If possible, make preparations only when the machine is switched off.

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

- Inserting/changing the needle
- Threading the needle thread
- Inserting and winding on the looper thread
- Setting the thread tension

4.2 Switching on and off the machine

Fig. 2: Switching on and off the machine



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

To switch on the machine:

1. Press the main switch (1) into position **I**.

   ↳ The LED (2) lights up.

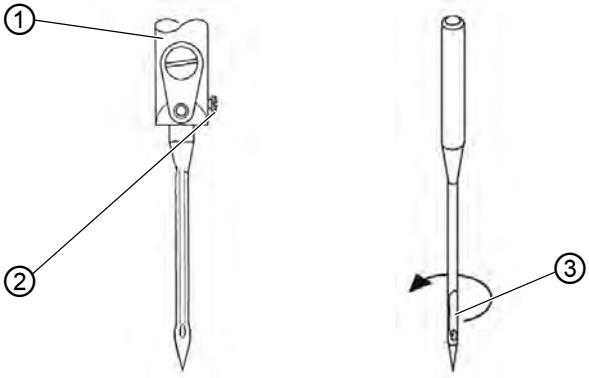
To switch off the machine:

1. Press the main switch (1) into position **0**.

   ↳ The LED (2) goes off.

4.3 Inserting or replacing the needle

Fig. 3: Inserting or replacing the needle



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

To insert or replace the needle:

1. Switch off the machine.
2. Turn the handwheel until the needle bar (1) reaches the top dead centre.
3. Loosen screw (2).
4. Pull the needle out downwards.
5. Insert the new needle.

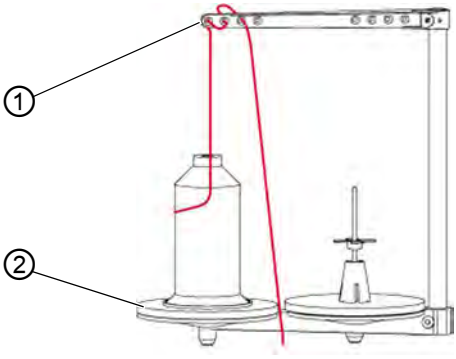
Important

Align the needle so that the groove (3) faces to the rear.

6. Tighten screw (2).

4.4 Threading the needle thread

Fig. 4: Threading the needle thread (1)



(1) - Thread guide *(2) - Reel stand*

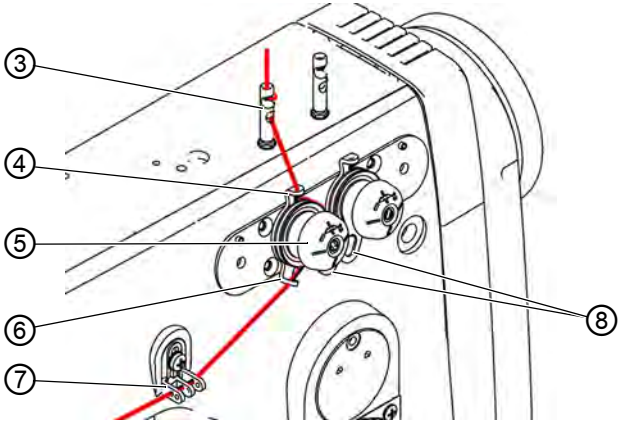
To thread the needle thread:

1. Switch off the machine.
2. Fit the thread reel on the left plate of the reel stand (2).
3. Thread the thread in a wavelike manner through the holes of the thread guide.

Important

The thread guide (1) must be parallel to the reel stand (2).

Fig. 5: Threading the needle thread (2)



(3) - Thread guide
(4) - Thread guide
(5) - Needle thread tension
(6) - Thread guide
(7) - Thread advancing device
(8) - Tension opener

4. Feed the thread through the thread guide (3) from above downwards.
5. Guide the thread around the back of the thread guide (3) and from the rear to the front through the bottom hole.
6. Feed the thread from above downwards through the thread guide (4) to the needle thread tension (5).
7. Feed the thread clockwise around the needle thread tension (5).

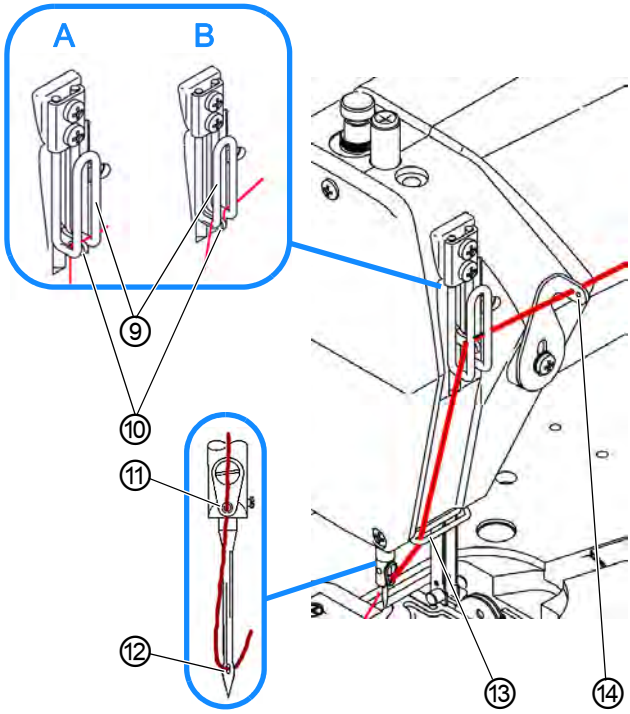
Information

The thread must always be fed around the relevant tensioning disk such that it covers the greater distance from thread guide (4) to thread guide (6).

Every tension has a tension opener (8). By pressing on the tension opener, the relevant tension can be opened to allow the thread to be fed around.

8. Insert the thread through the thread guide (6).
9. Insert the thread from the right to the left through the thread advancing device (7).

Fig. 6: Threading the needle thread (3)



(9) - Needle thread regulator
(10) - Thread lever
(11) - Thread guide
(12) - Needle eye
(13) - Thread guide
(14) - Deflector

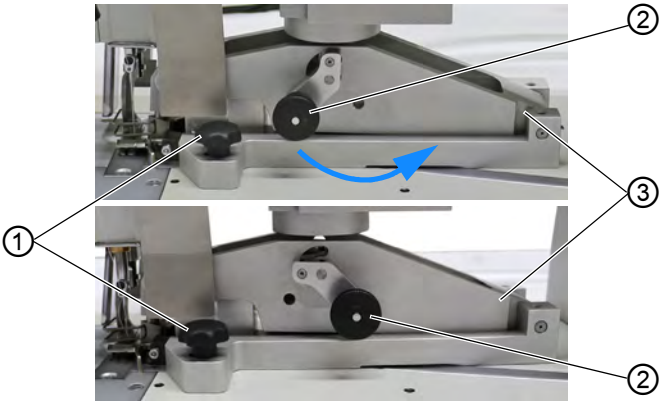
10. Feed the thread from the right to the left through the deflector (14).
11. Insert the thread from right to left through the thread regulator (9) and thread lever (10):
    - **For tight/normal seams (A):** Feed the thread through the thread lever (10) and then directly downwards.
    - **For balloon stitch and very elastic threads (B):** Feed the thread through the thread lever (10) and then via the left bar of the thread regulator (9).
12. Feed the thread from above downwards through the thread guide (13).
13. Feed the thread from above forwards and downwards to the rear through the thread guide (11).

14. Insert the thread from the front to the back through the needle eye (6).

4.5 Threading the looper thread

Information
On machines equipped with the *edge pinker* option, the edge pinker must be disassembled first.

Fig. 7: Disassembling the edge pinker



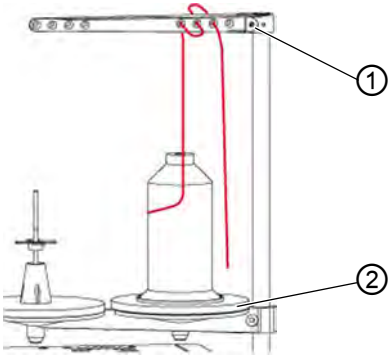
(1) - Screw
(2) - Lever
(3) - Edge pinker

To disassemble the edge pinker:

1. Move the lever (2) to the right.
   Make sure the lever (2) snaps into place.
2. Loosen the screw (1).
3. Press the pedal back.

↳ The sewing foot is lifted.
The edge pinker (3) can be removed completely.

Fig. 8: Threading the looper thread (1)



(1) - Thread guide *(2) - Reel stand*

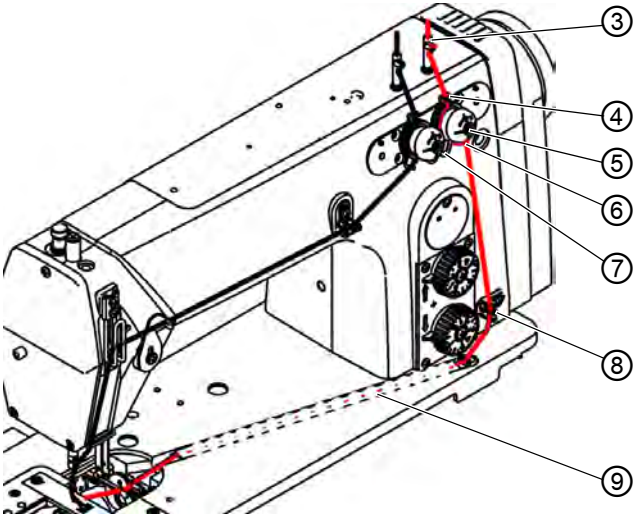
To thread the looper thread:

1. Switch off the machine.
2. Fit the thread reel on the right plate of the reel stand (2).
3. Fit the thread in a wavelike manner through the holes of the thread guide (1).

Important

The thread guide (1) must be parallel to the reel stand (2).

Fig. 9: Threading the looper thread (2)



(3) - Thread guide
(4) - Thread guide
(5) - Looper thread tension
(6) - Thread guide
(7) - Tension opener
(8) - Thread advancing device
(9) - Thread groove

4. Feed the thread through the thread guide (3) from above downwards.
5. Guide the thread around the back of the thread guide (3) and from the rear to the front through the bottom hole.
6. Feed the thread from above downwards through the thread guide (4) on the looper thread tension (5).
7. Guide the thread counterclockwise around the looper thread tension (5).

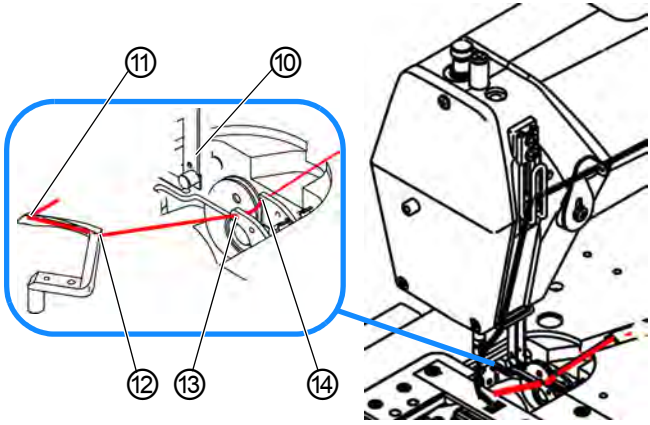
Information

The thread must always be fed around the relevant tensioning disk such that it covers the greater distance from thread guide (4) to thread guide (6).

By pressing on the tension opener (7), the tension can be opened to allow the thread to be fed around.

8. Insert the thread from above downwards through the thread advancing device (8).
9. Guide the thread through the thread groove (9).
   To do this, pull the thread from the back under the cover plate of the thread groove (9).

Fig. 10: Threading the looper thread (3)

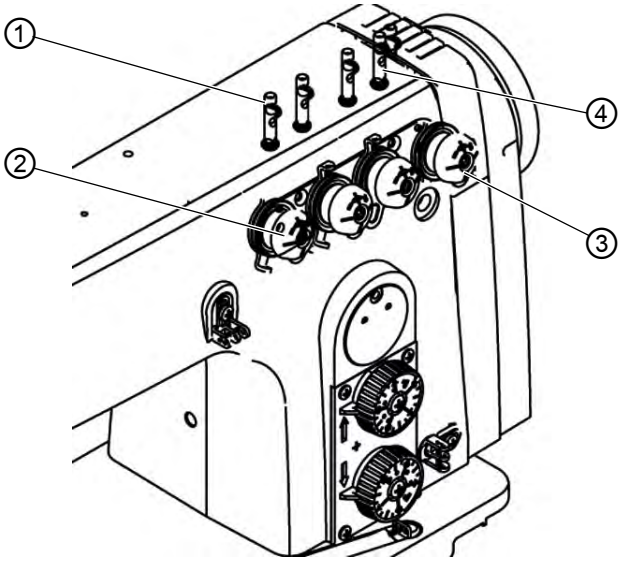


(10) - Thread down-holder
(11) - Hole
(12) - Hole
(13) - Hole
(14) - Hole

10. Remove the cover plates to the right and left of the throat plate.
11. Lift the thread down-holder (10) from its latching.
12. Insert the thread from the right to the left through holes (14) and (13) of the looper thread guide.
13. Turn the handwheel until the looper hole (12) is accessible.
14. Insert the thread from right to left through the looper hole (12).
15. Insert the thread from left to right through the looper hole (11) and pull out approx. 3 cm.
16. Press down the thread down-holder (10) and engage.
17. Fit the cover plates to the right and left of the throat plate.

4.6 Threading twin-needle machines

Fig. 11: Threading twin-needle machines



(1) - 2nd Needle thread guide
(2) - 2nd Needle thread tension
(3) - 2nd Looper thread guide
(4) - 2nd Looper thread tension

Twin-needle machines have a second tensioning wheel and a second thread guide on the machine arm, to accommodate both the needle thread and the looper thread.

The thread puller and the other thread guides on all machines have two holes so that two threads can also be threaded.

The threading procedure corresponds to that for the single-needle machines.

Important

Take care when threading the machine that the threads do not cross over one another

4.7 Thread tension

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

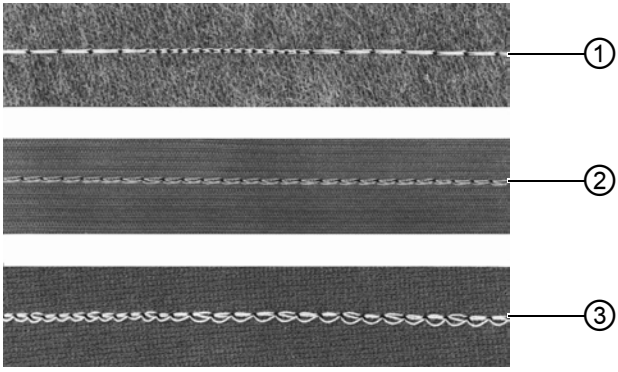
Proper setting

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

A differentiation is made between 3 seam types:

- Tight seams (1)
- Normal seams (2)
- Highly elastic seams (balloon stitch) (3)

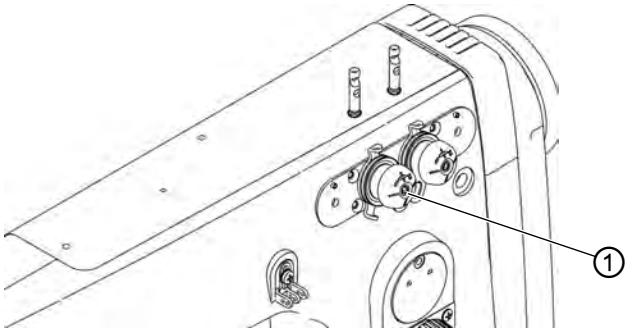
Fig. 12: Thread tension



(1) - Tight seam
(2) - Normal seam
(3) - Highly elastic seam (balloon stitch)

4.7.1 Setting the needle thread tension

Fig. 13: Setting the needle thread tension



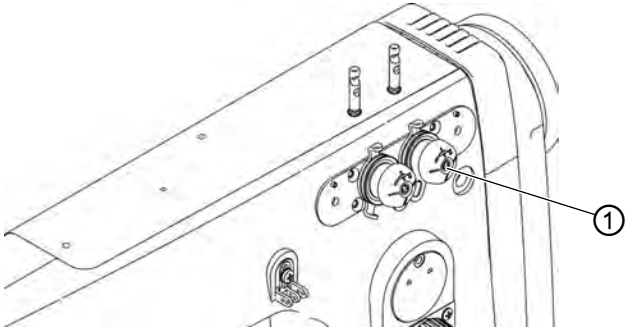
(1) - Adjusting wheel

To set the needle thread tension:

1. Turn the adjusting wheel (1).
   - **increasing the needle thread tension:** turn the adjusting wheel (1) clockwise
   - **decreasing the needle thread tension:** turn the adjusting wheel (1) counterclockwise

4.7.2 Setting the looper thread tension

Fig. 14: Setting the looper thread tension



(1) - Adjusting wheel

To set the looper thread tension:

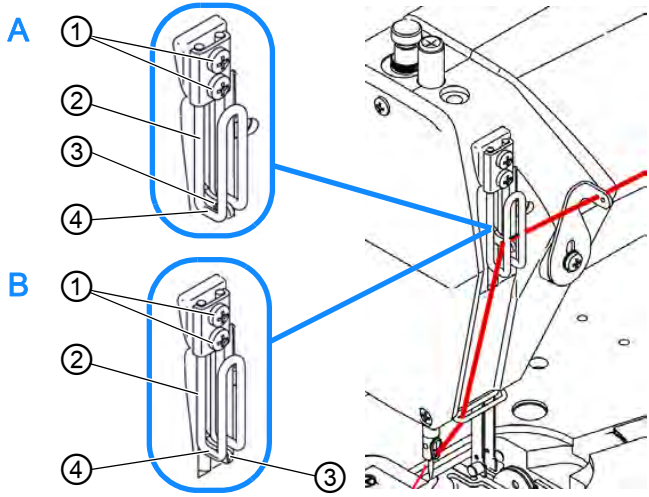
1. Turn the adjusting wheel (1).
   - **increasing the looper thread tension:** turn the adjusting wheel (1) clockwise
   - **decreasing the looper thread tension:** turn the adjusting wheel (1) counterclockwise

4.8 Setting the thread quantity

4.8.1 Setting the needle thread regulator

The needle thread quantity released for stitch formation is determined by the position of the thread regulator.
The required thread quantity depends on the thickness of the sewing material, thread strength and seam type.
For different threads and seam types, the threading procedure also differs (📖 *p. 22*).

Fig. 15: Setting the needle thread regulator



(1) - Screws
(2) - Needle thread regulator
(3) - Hole of the thread lever
(4) - Lower bar of the needle thread regulator

Proper setting

Less elastic threads: The hole of the thread lever (3) is visible in the thread lever's bottom position just above the lower bar of the needle thread regulator (4) **(A)**.

Very elastic threads: The hole of the thread lever (3) is visible in the thread lever's bottom position just below the lower bar of the needle thread regulator (4) **(B)**.

To set the needle thread regulator:

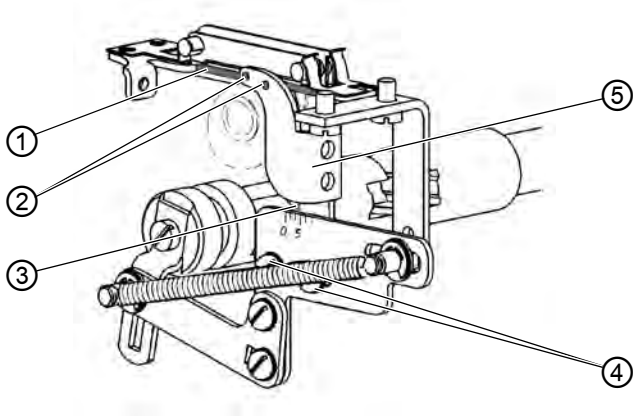
1. Turn the handwheel until the thread lever reaches its lower end position.
2. Loosen the screws (1).
3. Move the needle thread regulator (2) to the correct position.
4. Tighten the screws (1).

4.8.2 Setting the looper thread take-up

The looper thread take-up adjusts the looper thread quantity to the relevant set stitch length so that the stitch pull is optimal for every length and also for stitch condensing.

The looper thread take-up can be adjusted continuously on a scale from 0 to 5. The larger the value, the greater the released thread quantity and the more elastic the seam.

Fig. 16: Setting the looper thread take-up



(1) - Bar
(2) - Holes
(3) - Looper thread take-up edge: Scale reading point
(4) - Screws
(5) - Looper thread take-up

Proper setting

The correct setting is dependent on the stitch length and the seam type (📖 *p. 30*).
In particular for extreme settings (e. g. highly elastic seams), it must be ensured that the looper thread quantity is not too large.

To set the looper thread take-up:

1. Switch off the machine.
2. Tilt the machine head.
3. Loosen the screws (4).

4. Move the looper thread take-up (5).
   - **tighter seam:** move the looper thread take-up edge (3) in the direction of **0**
   - **more elastic seam:** move the looper thread take-up edge (3) in the direction of **5**

Important

Ensure that the height of the looper thread take-up (5) is not changed. The holes (2) must ALWAYS remain above the bar (1).

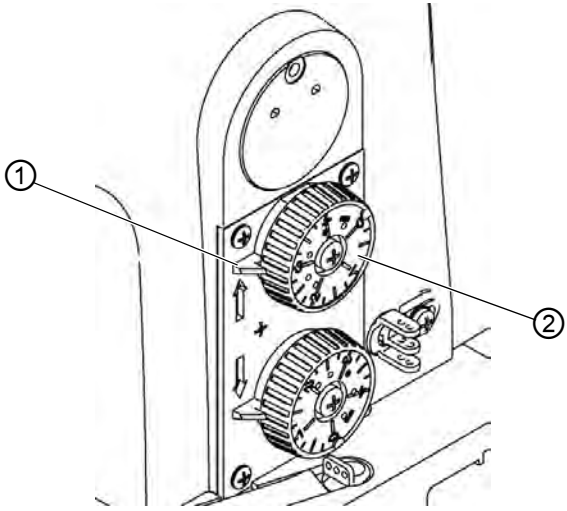
5. Tighten the screws (4).
6. Erect the machine head.

4.9 Stitch length

4.9.1 Setting the stitch length

The stitch length can be adjusted by turning the adjusting wheel continuously between 1 and 4 mm.

Fig. 17: Setting the stitch length (1)



(1) - Adjusting mark *(2) - Stitch length adjusting wheel*

To set the stitch length:

1. Turn the stitch length adjusting wheel (2).
   - **increasing the stitch length:** turn the stitch length adjusting wheel (2) counterclockwise
   - **decreasing the stitch length:** turn the stitch length adjusting wheel (2) clockwise

↳ The adjusting mark (1) indicates the selected stitch length.

Setting the stitch length for subclass 171-131610

WARNING

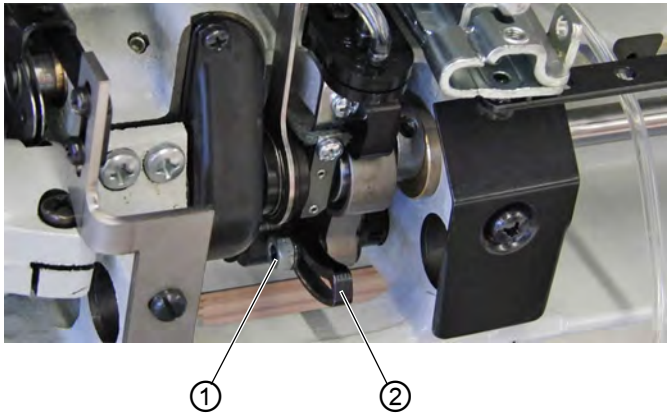
Risk of injury from moving parts!

Crushing possible.

Switch off the machine before setting the stitch length.

The subclass 171-131610 does not have adjusting wheels for the stitch length. Here, the stitch length is adjusted on the machine underside.

Fig. 18: Setting the stitch length (2), Subclass 171-131610



(1) - Screw *(2) - Lever*

To set the stitch length:

1. Switch off the machine.
2. Tilt the machine head.
3. Loosen the screw (1).
4. Move the lever (2).
   - **increasing the stitch length:** Push the lever (2) to the back
   - **decreasing the stitch length:** Pull the lever (2) to the front
5. Tighten the screw (1).
6. Erect the machine head.

4.9.2 Setting the stitch condensing

NOTICE

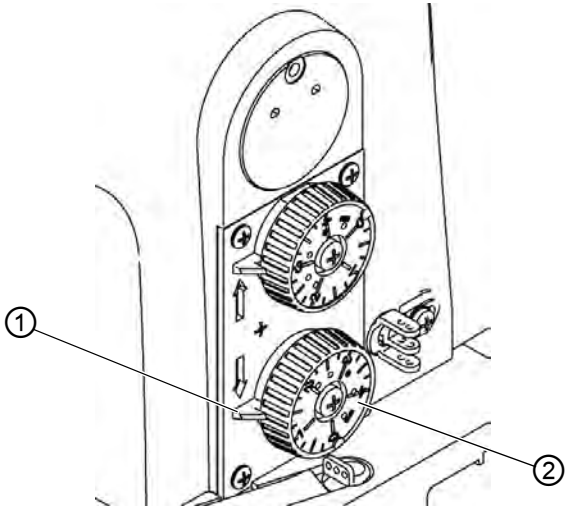
Property damage may occur!

Machine damage possible if the adjusting wheels are turned using excessive force.
The machine is designed in such a way that it is not possible to select a larger stitch length on the lower adjusting wheel than on the upper adjusting wheel.

DO NOT attempt to set a longer stitch length on the lower stitch length adjusting wheel wheel than on the upper stitch length adjusting wheel.

For machines with pushbuttons on the machine arm (📖 *p. 52*) it is possible to switch over to stitch condensing while sewing. The stitch length for stitch condensing can be adjusted by turning the adjusting wheel continuously between 1 and 4 mm.

Fig. 19: Setting the stitch condensing



(1) - Adjusting mark *(2) - Stitch length adjusting wheel*

To set the stitch condensing:

1. Turn the stitch length adjusting wheel (2).
   - **increasing the stitch length:** turn the stitch length adjusting wheel (2) counterclockwise
   - **decreasing the stitch length:** turn the stitch length adjusting wheel (2) clockwise

   The adjusting mark (1) indicates the selected stitch length.

4.10 Sewing feet

4.10.1 Setting the sewing foot pressure

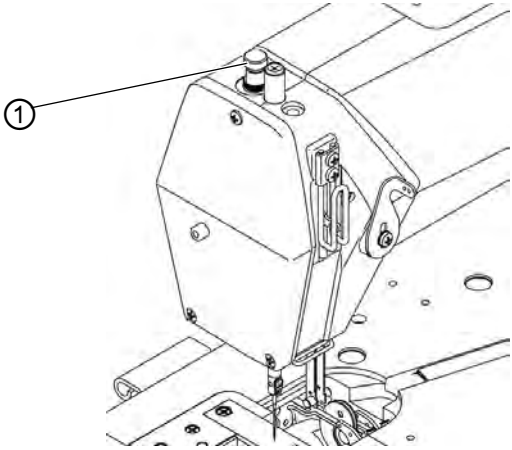
Proper setting

The sewing material does not slip and is fed through correctly.

Disturbance

- pressure too high: Tearing of the sewing material
- pressure too low: Slipping of the sewing material

Fig. 20: Setting the sewing feet pressure



(1) - Adjusting wheel

To set the sewing foot pressure:

1. Turn the adjusting wheel (1).
   - **increasing the sewing foot pressure:** turn the adjusting wheel (1) clockwise
   - **decreasing the sewing foot pressure:** turn the adjusting wheel (1) counterclockwise

4.10.2 Lifting the sewing foot

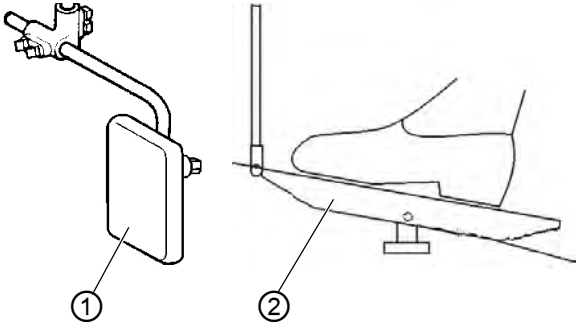
CAUTION

Risk of injury from moving parts!
Crushing possible.

DO NOT place your hands under the sewing foot when it is lifted.

To insert or feed the sewing material, the sewing foot is lifted either mechanically with the knee lever or electromagnetically with the food pedal.

Fig. 21: Lifting the sewing foot



(1) - Knee lever *(2) - Pedal*

To lift the sewing foot with the **knee lever**:

1. Push the knee lever (1) to the right.

The sewing foot is lifted.
The sewing foot remains up as long as pressure is maintained on the knee lever (1).

To lift the sewing foot with the **pedal**:

1. Press the pedal (2) half-way back.

The sewing foot is lifted.
The sewing foot remains up as long as the pedal is kept in that position.

2. Press the **pedal** (2) completely back at the seam end.

↳ The sewing foot is lifted.
The thread cutter is activated.

4.10.3 Locking the sewing foot at the top dead centre

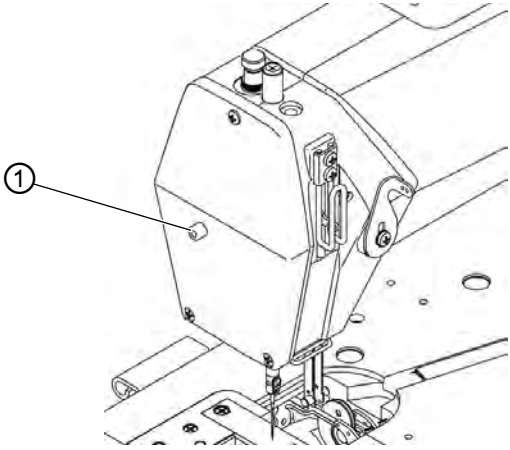
CAUTION

Risk of injury from moving parts!

Crushing possible.

DO NOT place your hands under the sewing foot when it is lifted.

Fig. 22: Locking the sewing foot at the top dead centre



(1) - Locking button

Locking the sewing foot at the top dead centre

To lock the sewing foot at the top dead centre:

1. Lift the sewing foot (📖 *p. 40*).
2. Press the locking button (1).
3. Release the knee lever or pedal.

↳ The sewing foot is locked at the top dead centre.

Cancelling the lock

To cancel the lock:

1. Push the knee lever to the right or press the pedal halfway back.

↳ The sewing foot is lowered.
The lock is canceled.

4.11 Roller top feed (optional)

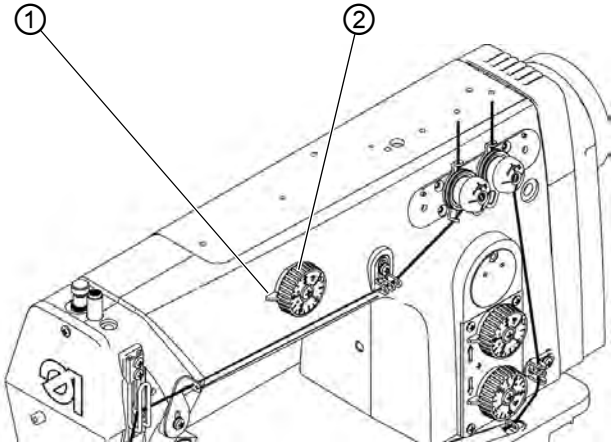
In addition to the bottom feed, a roller top feed is optionally available. The top feed can be set independently of the bottom feed and can thus be adjusted individually to the feed behavior of the relevant sewing material.

Information
When sewing the stitch condensing at the start and end of the seam, the roller top feed is automatically adjusted to the shortened bottom feed.

4.11.1 Setting the roller top feed length

The top feed length can be adjusted by turning the adjusting wheel continuously between 1 and 4 mm.

Fig. 23: Setting the roller top feed length



(1) - Adjusting mark *(2) - Adjusting wheel*

To set the roller top feed length:

1. Turn the adjusting wheel (2).
   - **increasing the roller top feed length:** turn the adjusting wheel (1) counterclockwise
   - **decreasing the roller top feed length:** turn the adjusting wheel (1) clockwise

↳ The adjusting mark (1) indicates the selected value.

4.11.2 Setting the pressure of the carrier roller

WARNING

Risk of injury from moving parts!

Crushing possible.

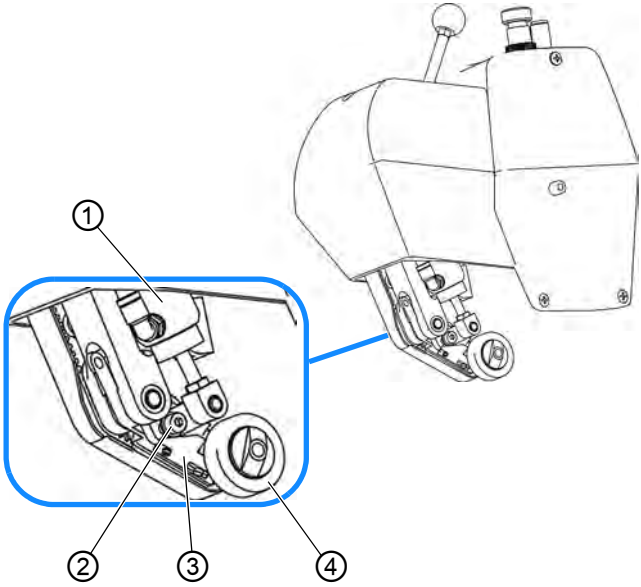
Switch off the machine before setting the pressure of the carrier roller.

The contact pressure of the carrier roller must be adapted to the relevant sewing material.

Proper setting

The sewing material does not slip and is fed through correctly.

Fig. 24: Setting the pressure of the carrier roller



(1) - Cylinder
(2) - Screw
(3) - Fabric deflector
(4) - Carrier roller

To set the pressure of the carrier roller:

1. Loosen the screw (2).
   - **increasing the pressure:** move the cylinder (1) towards the front of the machine
   - **decreasing the pressure:** move the cylinder (1) towards the rear of the machine
2. Tighten the screw (2).

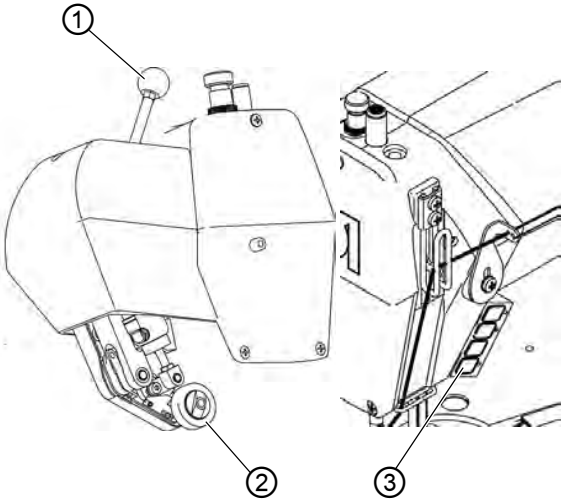
Information
Separating the thread chain without a thread cutter

For machines without a thread cutter, the fabric deflector (3) can be used during linking as a cutting knife for the thread chain.

4.11.3 Lifting the carrier roller

To sew corners or radii, the carrier roller can be lifted a little using the button on the machine arm.
Using the lever, the carrier roller can be raised completely out of the sewing area.

Fig. 25: Lifting the carrier roller



(1) - Lever
(2) - Carrier roller
(3) - Button

To lift the carrier roller **briefly**:

1. Press the button (3).

↳ The LED on the button (3) lights up.
The carrier roller (2) is raised.

2. Press the button (3) again.

↳ The LED on the button (3) goes out.
The carrier roller (2) is lowered.

To lift the carrier roller **completely**:

1. Pull the lever (1) to the front.

↳ The lever (1) engages.
The carrier roller (2) is completely raised.

2. Push the lever (1) to the back.

↳ The lever (1) disengages.
The carrier roller (2) is lowered.

4.12 Edge pinker (optional)

WARNING

Risk of injury from sharp parts!

Cutting injuries may be sustained.

NEVER reach into the area of the triangular knife.

CAUTION

Risk of injury from moving parts!

Crushing possible.

NEVER reach into the area of the chain cutter.

4.12.1 Adjusting the edge guide

The adjustment of the edge guide determines the distance between the seam and the edge of the fabric.

Fig. 26: Adjusting the edge guide

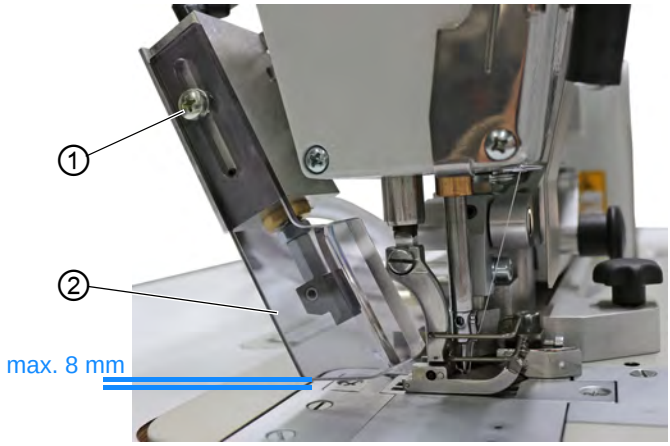
(1) - Edge guide *(2) - Screw*

To adjust the edge guide:

1. Loosen the screw (2).
2. Shift the edge guide (1) laterally.
3. Tighten the screw (2).

4.12.2 Adjusting the height of the chain cutter guard

Fig. 27: Adjusting the height of the chain cutter guard



(1) - Screw *(2) - Chain cutter guard*

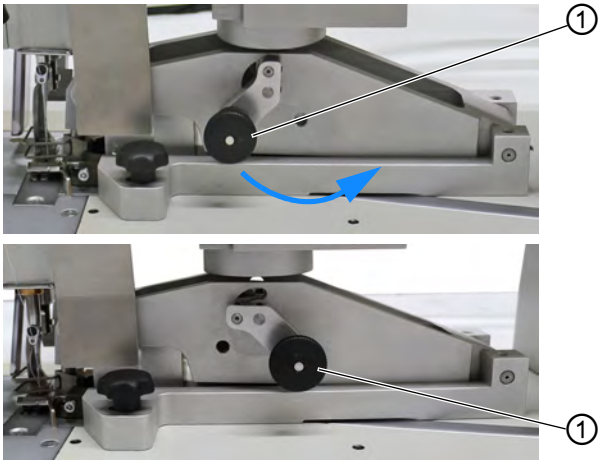
To adjust the height of the chain cutter guard:

1. Loosen the screw (1).
2. Adjust the height of the chain cutter guard (2).
3. Tighten the screw (1).

The chain cutter guard (2) cannot be positioned higher than 8 mm above the throat plate.

4.12.3 Deactivating the edge pinker

Fig. 28: Deactivating the edge pinker



(1) - Lever

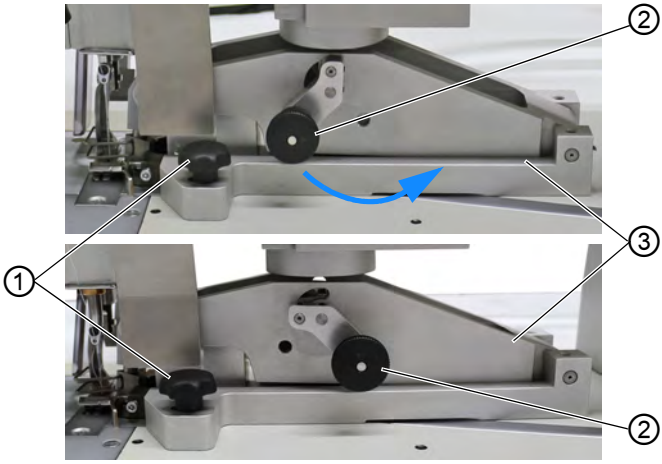
To deactivate the edge pinker:

1. Move the lever (1) to the right.
   Make sure the lever (1) snaps into place.

↳ The edge pinker has been deactivated.

4.12.4 Disassembling the edge pinker

Fig. 29: Disassembling the edge pinker



(1) - Screw
(2) - Lever
(3) - Edge pinker

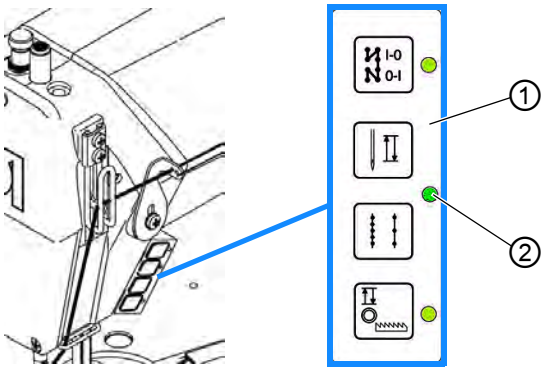
To disassemble the edge pinker:

1. Move the lever (2) to the right.
   Make sure the lever (2) snaps into place.
2. Loosen the screw (1).
3. Press the pedal back.

↳ The sewing foot is lifted.
The edge pinker (3) can be removed completely.

4.13 Buttons on the machine arm

Fig. 30: Buttons on the machine arm



(1) - Keypad *(2) - LED power supply*

Button	Function
	Inverts stitch condensing Reverses the general setting for automatic stitch condensing at the start and end of the seam: If stitch condensing is generally switched on, it is suppressed for the next stitch condensing. If stitch condensing is generally switched off, stitch condensing is enabled.
	Positions needle in the upper/lower position
	Manual stitch condensing during sewing As long as the button is pressed, the machine sews using the stitch length selected on the upper adjusting wheel for the stitch condensing.
	Lifts the carrier roller When the button is pressed, the carrier roller is raised. Renewed pressing of the button lowers the roller again. As long as the roller is raised, the yellow LED next to the button lights up.
Yellow LED: lights when function is activated **Green LED:** lights when the sewing drive is switched on	

4.14 Sewing

WARNING

Risk of injury from sharp and moving parts!

Puncture or crushing possible.

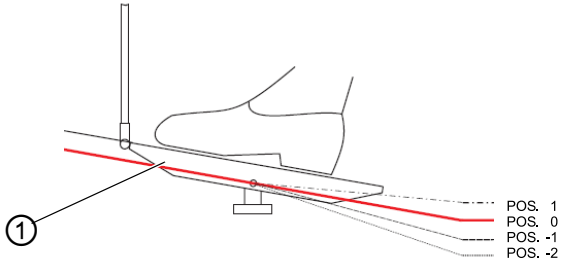
NEVER hold your hands in the area of the sewing feet and needle when sewing.

Sewing process

Initial position of the machine before sewing starts.

- The main switch is switched on.
- The pedal (1) is in rest position (**POS 0**).
- The machine is at a standstill.
- The needle is up.
- The sewing feet are down.
- The last sewing process is completed by cutting off the thread.

Fig. 31: Sewing



(1) - Pedal

To sew:

1. Press the pedal (1) to **POS. -1**.

   Lift the sewing feet.

2. Slide the sewing material up to the needle.

3. Press the pedal (1) to **POS. 1** and hold it down.

↳ The machine sews at the speed specified by the pedal.

Options during sewing

Process	Descriptiono
Stopping sewing	Press the pedal to **POS. 0**. ↳The machine stops. The needle is down. The sewing feet are down.
Continue the sewing process	Press the pedal to **POS. 1**. ↳The machine sews at the speed specified by the pedal.

To remove the sewing material:

4. Press the pedal to **POS. -2** and hold it down.

↳ The thread is cut off. The machine stops. The needle is up. The sewing feet are raised.

5. Release the pedal and remove the sewing material.

5 Programming

All software settings are performed using the OP1000 control panel.

The control panel is composed of a display and buttons.

Using the control panel you can:

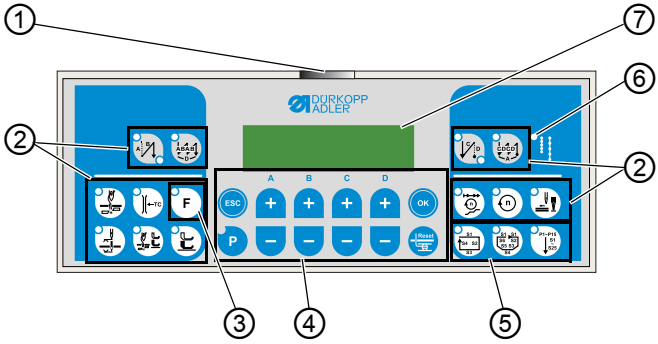
- Use groups of buttons to select machine functions
- Read service and error messages.

Information

This chapter describes the machine-specific functions of the OP1000 control panel.

Refer to the 🕮 *Instructions for use DAC basic/classic* for further information on the control and the OP1000 control panel.

Fig. 32: Programming

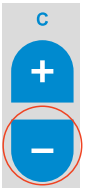


(1) - Power LED
(2) - Thread button group
(3) - Function button
(4) - Programming button group
(5) - Seam program button group
(6) - LED for 2nd stitch length
(7) - Display

OP1000 buttons and functions

Button		Function
Thread button group		
	Start bartack	• Sets the start bartack
	Multiple start bartack	• Sets the multiple start bartack
	End bartack	• Sets the end bartack
	Multiple end bartack	• Sets the multiple end bartack
	Thread cutter	• Activates or deactivates the thread cutter
	Thread clamp	• Activates or deactivates the thread clamp
	Needle position after sewing stop	• Sets the needle position after sewing stop
	Sewing foot lift after thread cutter	• Activates or deactivates the sewing foot lift after the thread cutter
	Sewing foot lift after sewing stop	• Activates or deactivates the sewing foot lift after sewing stops
	Soft start	• Activates or deactivates the soft start

Button	Function
 Speed	• Reduces the motor speed
 **Function button**	• Activates or deactivates any stored function
Programming button group	
 ESC	• Ends parameter mode
 A+	• Increases parameter • Changes user level • Selects subprogram
 B+	• Increases parameter • Changes to next higher category • Selects subprogram
 C+	• Increases parameter • Selects subprogram
 D+	• Increases parameter • Selects subprogram
 OK	• Calls parameter or saves it
 P	• Starts or ends the parameter mode

Button	Function
 A-	• Decreases parameter • Changes user level • Selects subprogram
 B-	• Decreases parameter • Changes to next lower category • Selects subprogram
 C-	• Decreases parameter • Selects subprogram
 D-	• Decreases parameter • Selects subprogram
 Reset	• Resets the (piece) counter

Button	Function
Seam program button group	
 Seam program I	• Activates seam program I
 Seam program II	• Activates seam program II
 Seam program III	• Sets seam program III

5.1 Edge pinker

5.1.1 Setting the parameters

The following **parameters** can be set for the edge pinker:

Parameter	Description
Operator level	
o 13 00	Suction/needle cooling 0 = OFF 1 = ON
Technician level	
t 13 01	Switch-off delay suction Value range: 9,999 - 2,500 seconds

5.1.2 Activating the chain cutter

To **activate the chain cutter**, press the  button on the control panel.

6 Maintenance

WARNING

Risk of injury from sharp parts!

Punctures and cutting possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

WARNING

Risk of injury from moving parts!

Crushing possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

This chapter describes maintenance work that needs to be carried out on a regular basis to extend the service life of the machine and achieve the desired seam quality.

Advanced maintenance work may only be carried out by qualified specialists (🕮 *Service Instructions)*.

Maintenance intervals

Work to be carried out	Operating hours			
	8	40	160	500
Removing lint and thread remnants	●			
Check the oil	●			
Check the lubrication of the looper		●		
Servicing the pneumatic 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.

Areas requiring special cleaning

- Area under the throat plate
- Area around the looper
- Area around the thread take-up disk
- Thread trimmer
- Area around the needle
- Air inlet openings on the motor fan sieve
- Oil pan

To clean the machine:

1. Switch off the machine.
2. If present, disassemble the edge pinker (📖 *p. 51*).
3. Remove any lint and thread remnants using a compressed air gun or a brush.
4. If present, empty the waste bin of the edge pinker.

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.

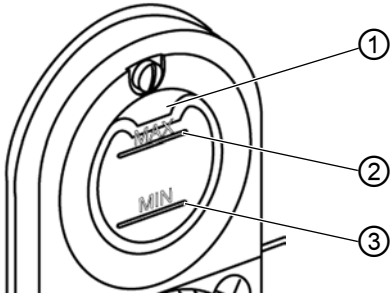
Container	Part no.
250 ml	9047 000011
1 l	9047 000012
2 l	9047 000013
5 l	9047 000014

6.2.1 Lubricating the machine head

Proper setting

The oil level is between the MIN-marking and the MAX-level marking.

Fig. 33: Lubricating the machine head



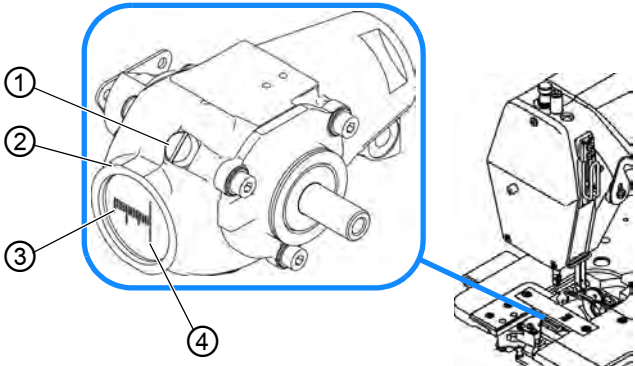
(1) - Refill opening
(2) - MAX-marking
(3) - MIN-marking

To lubricate the machine head:

1. Switch off the machine head.
2. Pour oil through the refill opening (1) to the MAX-marking (2).

6.2.2 Lubricating the looper

Fig. 34: Lubricating the looper



(1) - Screw
(2) - Oil reservoir
(3) - MAX-marking
(4) - MIN-marking

To lubricate the looper:

1. Switch off the machine.
2. Tilt the machine head.
3. Loosen the screw (1).
4. Pour in oil to the MAX-marking (3).
5. Tighten the screw (1).
6. Erect the machine head.

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.

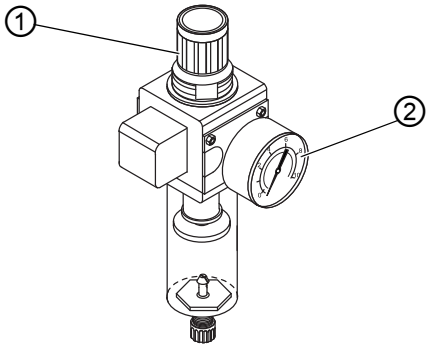
Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical data** (📖 *p. 99*) 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. 35: 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-oil mixture

NOTICE

Property damage from excess liquid!

Too much liquid can result in damage to the machine.

Drain liquid as required.

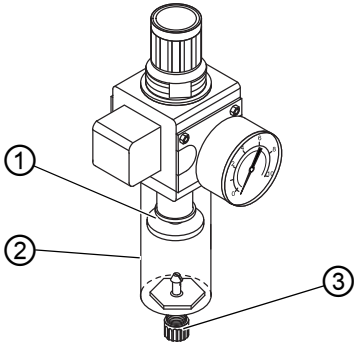
The collection tray (2) of the pressure regulator will show accumulation of a water-oil mixture.

Proper setting

The water-oil mixture must not rise up to the level of the filter element (1).

Check the level of the water-oil mixture in the collection tray (2).

Fig. 36: Draining the water-oil mixture



(1) - Filter element
(2) - Collection tray
(3) - Drain screw

To drain the water-oil mixture:

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

6.3.3 Cleaning the filter element

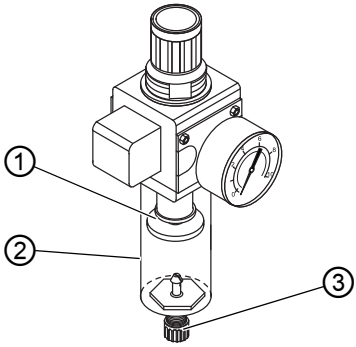
NOTICE

Damage to the paintwork from solvent-based cleaners!

Solvent-based cleaners damage the filter.

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

Fig. 37: Cleaning the filter element



(1) - Filter element
(2) - Collection tray
(3) - Drain screw

To clean the filter element:

1. Disconnect the machine from the compressed air supply.
2. Drain the water-oil mixture (📖 *p. 67*).
3. Unscrew the collection tray (2).

4. Unscrew the filter element (1).
5. Blow out the filter element (1) using the compressed air gun.
6. Wash out the filter tray using benzine.
7. Tighten the filter element (1).
8. Tighten the collection tray (2).
9. Tighten the drain screw (3).
10. Connect the machine to the compressed air supply.

6.4 Parts list

A parts list can be ordered from Dürkopp Adler. Or visit our website for further information at:

www.duerkopp-adler.com

7 Setup

WARNING

Risk of injury from cutting parts!

Cutting injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety gloves

WARNING

Risk of injury from moving parts!

Crushing injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety shoes.

7.1 Checking the scope of delivery

The scope of delivery depends on your specific order.
Check that the scope of delivery is correct after taking delivery.

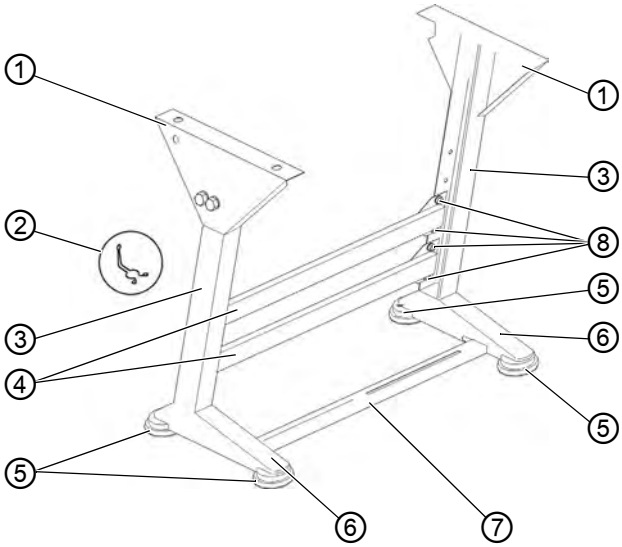
7.2 Removing the transport locks

Remove all transport locks before setting up the machine:

- Lashing straps and wooden blocks from the machine head
- Lashing straps and wooden blocks from the table
- Lashing straps and wooden blocks from the stand
- Supporting wedges between the machine arm and the throat plate

7.3 Assembling the stand

Fig. 38: Assembling the stand



(1) - Head sections
(2) - Oil can holder
(3) - Stand bars
(4) - Cross bars
(5) - Stand feet
(6) - Foot struts
(7) - Cross strut
(8) - Screws

To assemble the stand:

1. Screw the cross bars (4) onto the stand bars (3).
2. Screw the cross strut (7) onto the foot struts (6).
3. Screw the head sections (1) onto the stand bars (3).
4. Push the stand frame feet (5) onto the foot struts (6).

Important

The frame must sit evenly on the ground with all 4 feet.

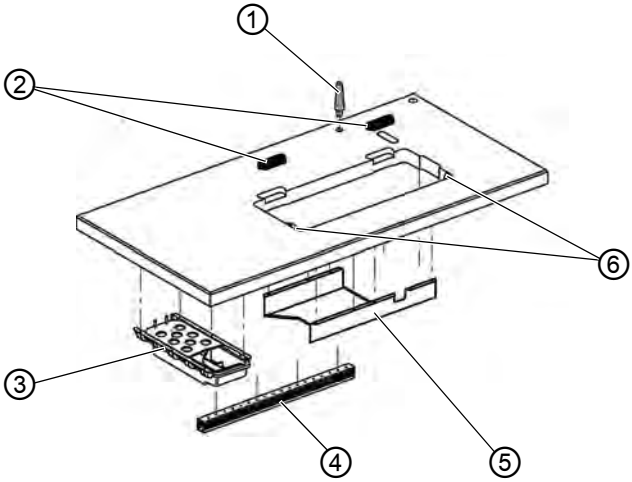
5. Tighten the screws (8).
6. Screw the oil can holder (2) at the rear to the upper cross bar (4).

7.4 Tabletop

7.4.1 Completing the tabletop

Ensure that the tabletop has sufficient load-bearing capacity and strength. If you want to make your own tabletop, use the dimensions given in the diagram **Appendix** (📖 *p. 103*) as a template.

Fig. 39: Completing the tabletop



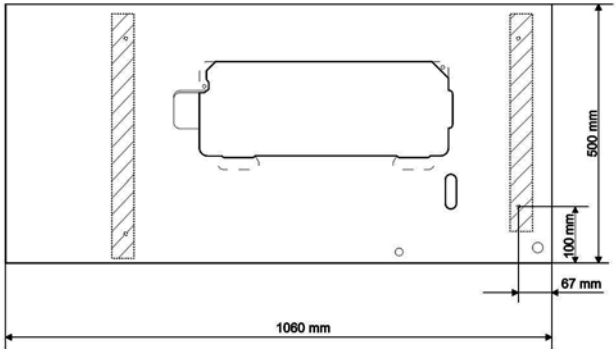
(1) - Machine head support (only 171)
(2) - Rubber mounts
(3) - Drawer
(4) - Cable duct
(5) - Oil pan
(6) - Corners

To complete the tabletop:

1. Insert the machine head support (1) in the hole of the table plate. (only required for class 171).
2. Fit the rubber mounts (2) into the recesses.
3. Fit the rubber corners into the corners (6) in the tabletop cutout.
4. Screw the drawer (3) on the left under the tabletop.
5. Screw the cable duct (4) at the back under the tabletop.
6. Mark the fastening positions of the oil pan (5).
7. Screw the oil pan (5) with wood screws under the tabletop cutout.

7.4.2 Assembling the tabletop to the stand

Fig. 40: Assembling the tabletop to the stand

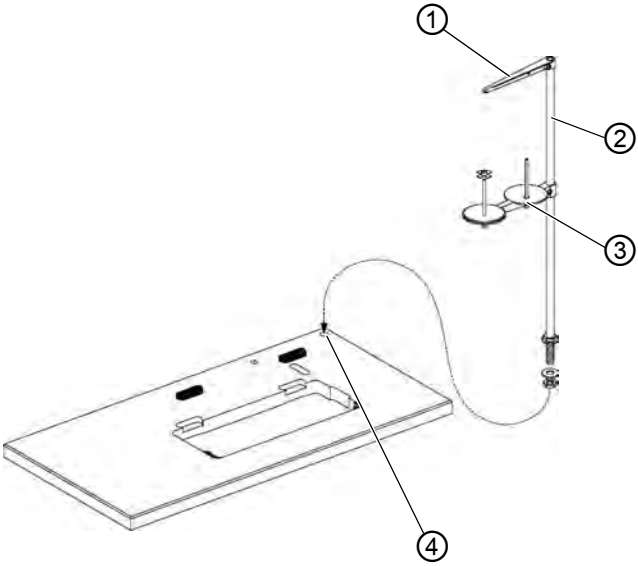


To assemble the tabletop to the stand:

1. Secure the table plate with wood screws onto the frame, in accordance with the dimensions shown above.

7.4.3 Assembling the reel stand

Fig. 41: Assembling the reel stand



(1) - Thread guide
(2) - Reel stand
(3) - Thread reel holder
(4) - Hole

To assemble the reel stand:

1. Insert the reel stand (2) in the hole (4).
2. Fasten the reel stand (2) with nut and washer.
3. Screw the thread reel holder (3) and the thread guide (1) onto the reel stand (2)

The thread guide (1) and the thread reel holders (3) must be exactly parallel to each other.

7.5 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

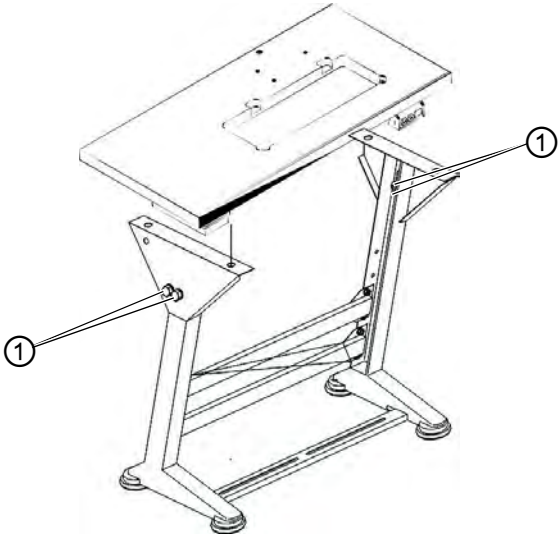
Risk of musculoskeletal damage from incorrect setting!

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.

The working height can be adjusted continuously between 750 and 900 mm

Fig. 42: Setting the working height



(1) - Screws

To set the working height:

1. Loosen the screws (1).
2. Set the tabletop to the desired height.

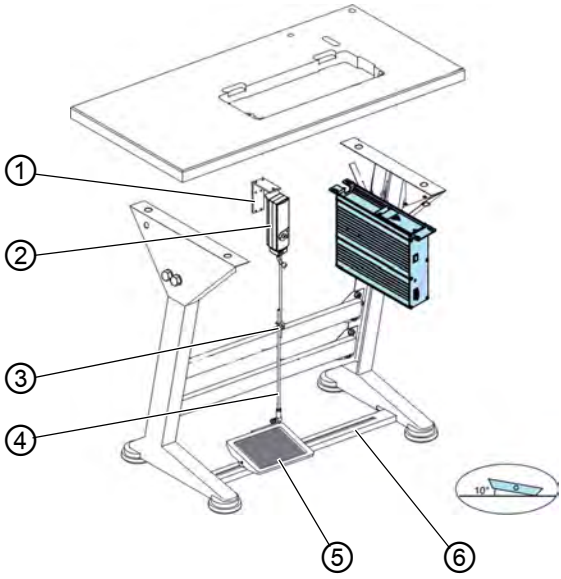
Important

Pull out or push in the tabletop evenly at both sides to prevent it from jamming.
Ensure that the tabletop is level.

3. Tighten the screws (1).

7.6 Assembling the pedal and the setpoint device

Fig. 43: Assembling the pedal and teh setpoint device



(1) - Bracket
(2) - Setpoint device
(3) - Screw
(4) - Pedal rod
(5) - Pedal
(6) - Cross strut

To assemble the pedal and the setpoint device:

1. Place the pedal (5) on the cross strut (6) and align it.
   ↳ The pedal (5) is under the needle.
2. Assemble the pedal (5).
3. Screw the setpoint device (2) onto the bracket (1).
4. Screw the bracket (1) under the table plate so that the pedal rod (4) runs to the pedal (5) at right-angles to the setpoint device (2).
5. Hang the pedal rod (4) with the ball socket on the setpoint device (2) and the pedal (5).

Proper setting

The pedal is correctly adjusted if it has an inclination of 10° when released.

6. Tighten the screw (3).

7.7 Inserting the machine head

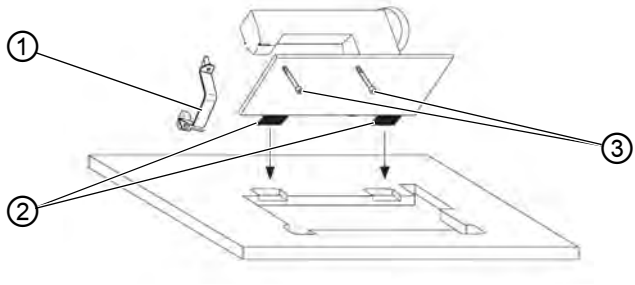
WARNING

Risk of injury!

The machine head is heavy and can cause crushing injuries if handled in a careless manner.

NEVER stick your hands between machine head and tabletop.

Fig. 44: Inserting the machine head



(1) - Protective bar
(2) - Hinge upper parts
(3) - Screws

To insert the machine head:

1. Insert the machine upper section at a 45° angle from above with the hinge upper parts (2) in the rubber inlays.
2. Tilt the machine head.

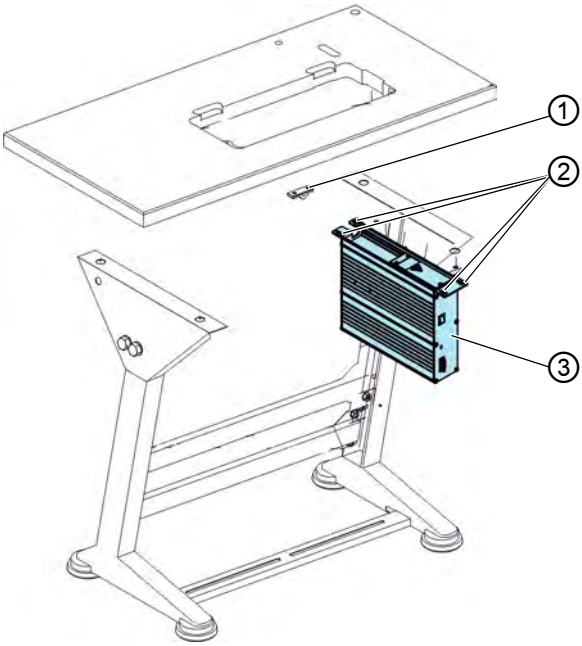
Important

Remove the protective bar (1) and the screws (3).

3. Erect the machine head.

7.8 Assembling the control

Fig. 45: Assembling the control



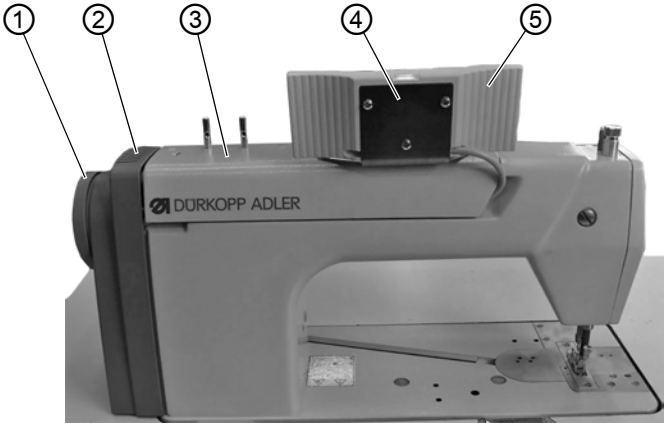
(1) - Strain refief
(2) - Screw holder
(3) - Control

To assemble the control:

1. Screw the control (3) onto the screw holders (2) under the tabletop.
2. Clamp the power cable of the control into the strain relief (1).
3. Screw the strain relief (1) under the tabletop.

7.9 Assembling the control panel

Fig. 46: Assembling the control panel (1)

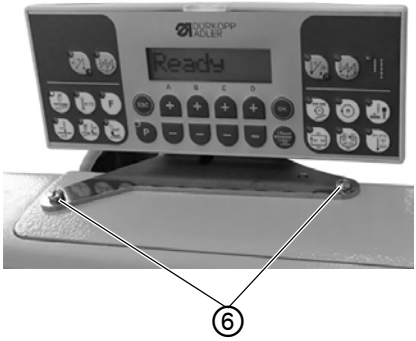


(1) - Handwheel
(2) - Handwheel cover
(3) - Arm cover
(4) - Bracket
(5) - Control panel

To assemble the control panel:

1. Loosen the screws of the arm cover (3).
2. Disassemble the arm cover (3).
3. Disassemble the handwheel (1).
4. Disassemble the handwheel cover (2).
5. Screw the control panel (5) onto the bracket (4).

Fig. 47: Assembling the control panel (2)

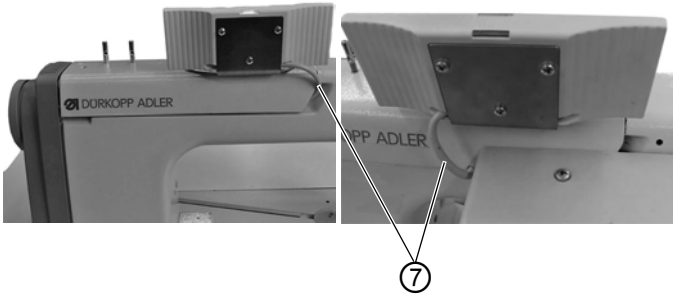


(6) - Screws

6. Winkel (4) mit Schrauben (6) auf dem Armdeckel festschrauben.
7. Secure the bracket (4) to the arm cover using the screws (6).
8. Position the arm cover (3) including control panel (5),but DO NOT tighten yet.

Fig. 48: Assembling the control panel (3)

Class 171 Class 173



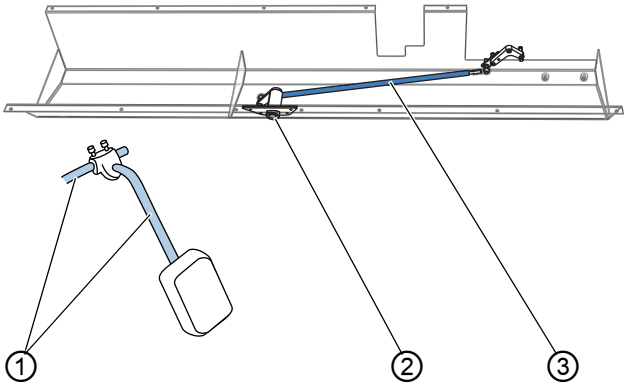
(7) - Cable

9. Lay the cable (7) behind the rear of the arm cover.
10. Guide the cable (7) down under the handwheel cover (3).
11. Feed the cable (7) through the tabletop cutout downwards to the control.
12. Tighten the arm cover (3).
13. Assemble the handwheel cover (2).

14. Assemble the handwheel (1).

7.10 Assembling the knee lever

Fig. 49: Assembling the knee lever



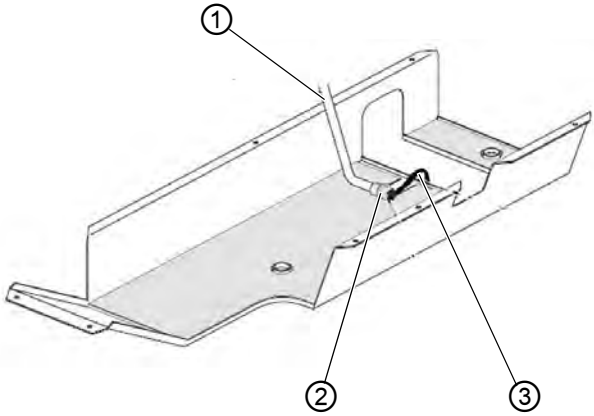
(1) - Knee lever rod
(2) - Hole
(3) - Transmission rod

To assemble the knee lever:

1. Tilt the machine head.
2. Assemble the transmission rod (3) in the oil pan.
3. Screw the knee lever rods (1) together.
4. Guide the knee lever rod (1) through the hole (2) in the oil pan.
5. Connect the knee lever rod (1) to the transmission rod (3).

7.11 Assembling the oil extraction line

Fig. 50: Assembling the oil extraction line



(1) - Oil hose
(2) - Suction filter
(3) - Clamp

To assemble the oil extraction line:

1. Tilt the machine head.
2. Wrap the suction filter (2) with felt.
3. Secure the suction filter (2) to the oil plate using the clamp (3).

Important

Lay and secure the oil hose (1) such that it does not come into contact with any moving parts.

4. Erect the machine head.

7.12 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.

7.12.1 Connecting the control

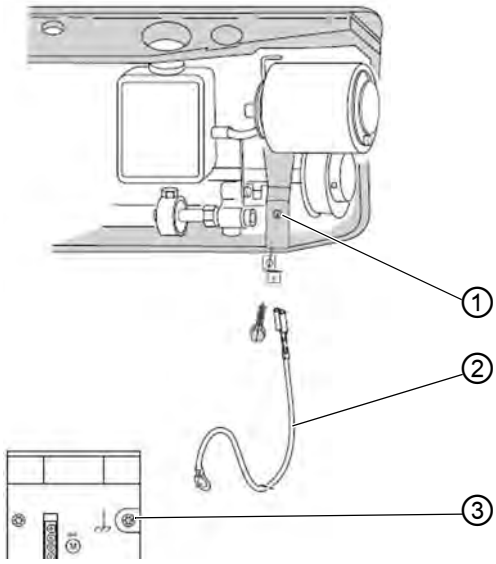
To connect the control:

1. Guide the cable from the machine head through the tabletop cutout.
2. Connect the cables with the control.
   Both the cables and the appropriate plugs are color-coded and marked with a symbol.

7.12.2 Creating the equipotential bonding

The earthing cable conducts away any static charging to ground.

Fig. 51: Creating the equipotential bonding



(1) - Connection point of the machine base plate
(2) - Earthing cable
(3) - Connection point on the control

To create the equipotential bonding:

1. Secure the earthing cable (2) to the connection point on the control (3).
2. Guide the earthing cable (2) upwards to the machine.
3. Secure the earthing cable (2) with screw and tab connector to the connection point on the machine base plate (1).

7.13 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!

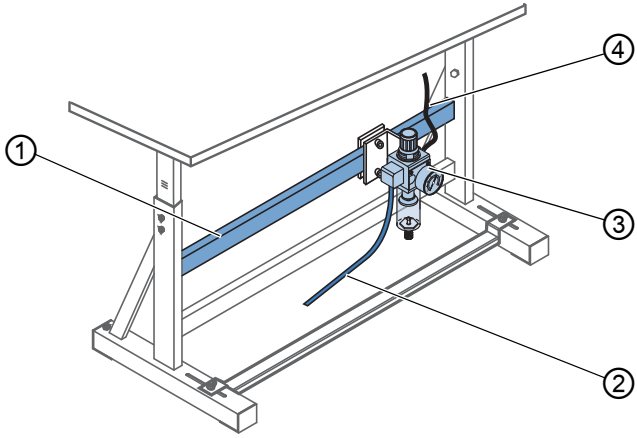
Incorrect system pressure can result in damage to the machine.

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.

7.13.1 Assembling the compressed air maintenance unit

Fig. 52: Assembling the compressed air maintenance unit



(1) - Cross bar
(2) - Connection hose
(3) - Compressed air maintenance unit
(4) - Machine hose

To assemble the compressed air maintenance unit:

1. Attach the compressed air maintenance unit (3) to the cross bar (1) of the stand using the bracket, screws and clip.
2. Connect the machine hose (4) to the compressed air maintenance unit (3).
3. Connect the connection hose (2) to the compressed air supply using a hose coupling R 1/4”.

7.13.2 Setting the operating pressure

NOTICE

Property damage from incorrect setting!

Incorrect operating pressure can result in damage to the machine.

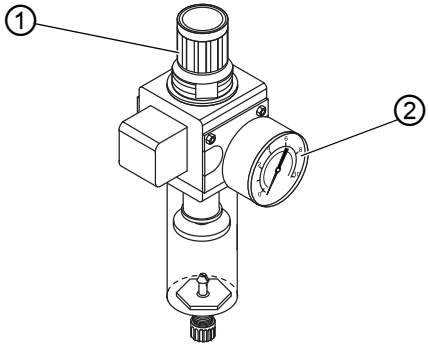
Ensure that the machine is only used when the operating pressure is set correctly.

Proper setting

Refer to the **Technical data** (📖 *p. 99*) 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. 53: 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.

7.14 Performing a test run

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

8 Decommissioning

WARNING

Risk of injury from a lack of care!

Serious injuries may occur.

ONLY clean the machine when it is switched off. Allow ONLY trained personnel to disconnect the machine.

CAUTION

Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil.
If oil has come into contact with your skin, wash the affected areas thoroughly.

To decommission the machine:

1. Switch off the machine.
2. Unplug the power plug.
3. If applicable, disconnect the machine from the compressed air supply.
4. Remove residual oil from the oil pan using a cloth.
5. Cover the control panel to protect it from soiling.
6. Cover the control to protect it from soiling.
7. Cover the entire machine if possible to protect it from contamination and damage.

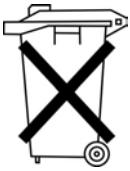
9 Disposal

CAUTION

Risk of environmental damage from improper disposal!

Improper disposal of the machine can result in serious environmental damage.

ALWAYS comply with the national regulations regarding disposal.



The machine must not be disposed of in the normal household waste.

The machine must be disposed of in a suitable manner in accordance with all applicable national regulations.

When disposing of the machine, be aware that it consists of a range of different materials (steel, plastic, electronic components, etc.). Follow the national regulations when disposing these materials.

10 Troubleshooting

10.1 Customer Service

Contact for repairs and issues with the machine:

Dürkopp Adler GmbH

Potsdamer Str. 190
33719 Bielefeld, Germany

Tel. +49 (0) 180 5 383 756
Fax +49 (0) 521 925 2594
Email: service@duerkopp-adler.com
Internet: www.duerkopp-adler.com

10.2 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 looper thread have not been threaded correctly	Check threading path
	Needle is bent or sharp-edged	Replace the needle
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar
	The thread used is unsuitable	Use recommended thread
	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, looper or spread have been damaged by the needle	Have parts reworked by qualified specialists

Error	Possible causes	Remedial action
Missing stitches	Needle thread and looper thread have not been threaded correctly	Check threading path
	Needle is blunt or bent	Replace the needle
	Needle is not inserted correctly into the needle bar	Insert the needle correctly into the needle bar
	The needle thickness used is unsuitable	Use recommended needle thickness
	The reel stand is installed incorrectly	Check the assembly of the reel stand
	Thread tensions are too tight	Check thread tensions
	Throat plate, looper 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 looper thread have not been threaded correctly	Check threading path
Needle breakage	Needle thickness is unsuitable for the sewing material or the thread	Use recommended needle thickness

11 Technical data

Noise emission

Workplace-specific emission value as per DIN EN ISO 10821:

Class 171-131110 (1-Needle)

L_{pA} = 79,4 dB (A); K_{pA} = 0,58 dB (A)

- Stitch length: 3,2 mm
- Speed: 4100 rpm
- Sewing material: 2-layer material G1 DIN 23328

Class 171-131110 (2-Needle)

L_{pA} = 78,8 dB (A); K_{pA} = 0,80 dB (A)

- Stitch length: 3,2 mm
- Speed: 4300 rpm
- Sewing material: 2-layer material G1 DIN 23328

Class 171-141521

L_{pA} = 79,0 dB (A); K_{pA} = 1,0 dB (A)

- Stitch length: 3,2 mm
- Speed: 4200 rpm
- Sewing material: 2-layer material G1 DIN 23328

Klasse 173-141110, 173-141521

L_{pA} = 79,0 dB (A); K_{pA} = 1,33 dB (A)

- Stitch length: 3,2 mm
- Speed: 4000 rpm
- Sewing material: 3-layer material G1 DIN 23328

11.1 Data and characteristic values

Technical data	Unit	0171-131610	0171-141621	0171 131610 + 550-121	0173-141610	0173-141621	550-2-2	550-15-5
Type of stitches		401						
Looper		Crossline						
Number of needles		1 (2)	1		1 (2)	1	2	1
Needle system		934 RG or 933						
Needle strength	[Nm]	80 - 130						
Thread strength	[Nm]	70/3						
Stitch length	[mm]	1 - 4		2,5	1 - 4			
Speed maximum	[min^{-1}]	6600	6000	2500	6000			
Speed on delivery	[min^{-1}]	6600	5800	2200	5800		5500	
Mains voltage	[V]	190 - 240						
Mains frequency	[Hz]	50/60						
Operating pressure	[bar]	6						
Length	[mm]	550			500			
Width	[mm]	175						
Height	[mm]	380						
Weight	[kg]	37	38		39	40	39	
Power input	[kVA]	0,5						

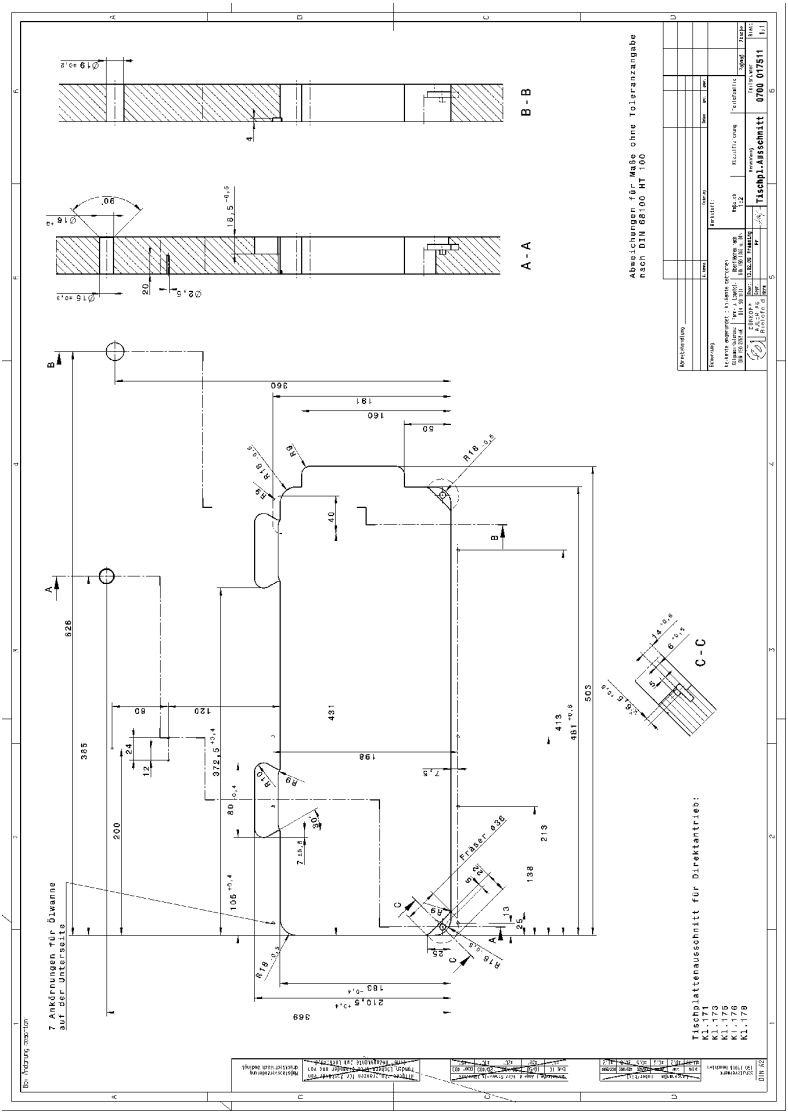
11.2 Requirements for trouble-free operation

Compressed air quality must be ensured in accordance with ISO 8573-1: 2010 [7:4:4].

12 Appendix

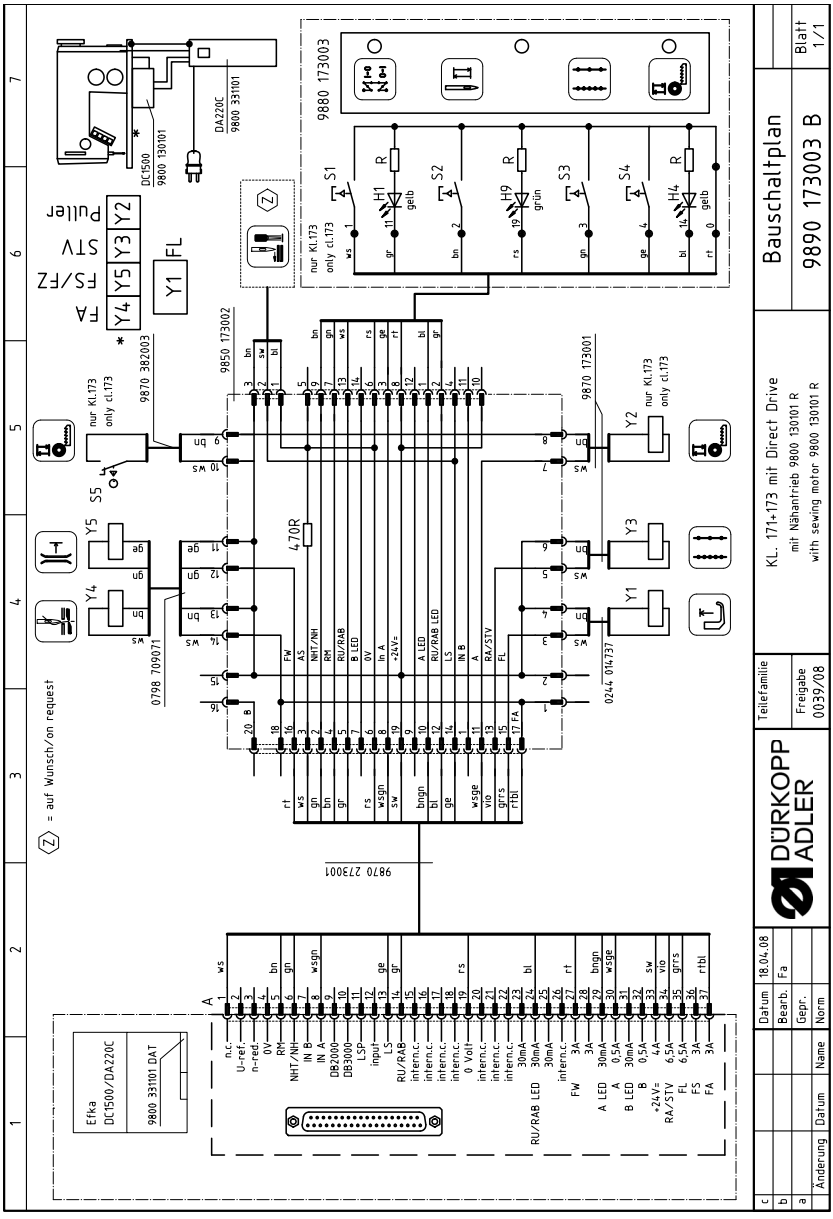
12.1 Table drawing

Fig. 54: Table drawing



12.2 Wiring diagram

Fig. 55: Wiring diagram



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