DÜRKOPP ADLER

745 - 35 S

Operating Manual

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1 About this operating manual

The operating manual for the 745-35 sewing unit was compiled with the utmost care. It contains information and notes in order to make long-term and reliable operation possible.

Should you notice any discrepancies or if you have improvement requests, then we would be glad to receive your feedback, 🕮 *Chapter 6.10 Customer service.*

Please regard the operating manual as part of the product and keep it in a safe place where it can be easily accessed. Read the operating manual completely prior to using the unit for the first time. Only pass the product on to third parties together with the operating manual.

1.1 Scope of application of the operating manual

This operating manual describes the set-up and intended use of the 745-35 sewing unit.

1.2 For whom is this operating manual?

The operating manual is intended for:

- Machine operators:
  This group of employees has been trained in operating the machine and can access the operating manual. Specifically 🕮 *Chapter 5 of the Operating manual* is important for this group of employees.
- Technicians:
  This group of employees has the appropriate technical training allowing them to perform maintenance on the sewing unit or to repair faults. Specifically 🕮 *Chapter 6 of the Installation instructions* is important for this specialized staff.Service instructions are supplied separately.

With regard to minimum qualification and other requirements to be met by the personnel, please also observe 🕮 *Chapter 3 of the Safety instructions*.

1.3 Representational conventions – Symbols and characters

Different information is depicted or highlighted in this operating manual by the following characters for easier and quicker understanding:

Symbol/character	Meaning
•	Lists are identified by bullet points.
1. 2.	Instructions are numbered and have to be performed in the specified order.
🕮	References to further information in this operating manual or other documents are identified by this symbol.

Safety

Important warnings for the user of the machine are specifically marked. Because safety constitutes an area of major importance, hazard symbols, levels of risk, and their signal words are described separately in 🕮 *Chapter 3 of the Safety instructions*.

Location information

Information on where something is positioned using the terms “right” or “left” must always be regarded from the operator's point of view if the figure gives no other obvious indication for determining the location.

1.4 Other documents

The device contains built-in components from other manufacturers. The respective manufacturers have carried out hazard assessments for these purchased parts and confirmed compliance of the design with the applicable European and national regulations. The intended use of the built-in components is described in the corresponding manuals of the manufacturers.

1.5 Liability

All information and notes in this operating manual have been compiled in accordance with the latest technology and the applicable standards and regulations.

The manufacturer cannot be held liable for any damage due to:

- Damage during transport
- Failure to observe the operating manual
- Improper use
- Unauthorized modifications to the machine
- The deployment of untrained personnel
- Using spare parts not approved

1.5.1 Transportation

Dürkopp Adler cannot be held liable for any damage during transport. Check the delivered product immediately after receiving it. Report any damage to the last transport manager. This also applies if the packaging is not damaged.

Keep the machines, devices and packaging material in the condition they were at the time when the damage was identified. That secures any claims towards the transport company.

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

1.5.2 Intended use

The Dürkopp Adler 745-35 is for sewing light to moderately heavy material. Light to moderately heavy material requires a needle strength of 80-110 Nm.

The machine is only intended for processing dry material. The material must not contain any hard objects.

The seam is produced using core spun threads, polyester fibers, or cotton threads.

The sewing 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 EN 60204-31:1999.

Only authorized/trained persons may work on the machine.

The manufacturer will not be held liable for damage resulting from improper use.

WARNING

Danger due to high voltage, crushing and sharp objects.

Improper use can result in injuries.

Please follow all instructions in the manual.

ATTENTION!

Improper use could result in material damage.

Please follow all instructions in the manual.

2 Performance description

The Dürkopp Adler 745-35 S is a sewing unit for the automatic runstitching of piped, flap and welt pocket openings with rectangular pocket corners.

The piping strips and additional parts are fed manually.

2.1 Features

Machine head

- Twin needle lockstitch version
- Large vertical hooks
- Externally driven center knife, speed and circuit timing programmable
- Thread trimming device for needle and hook threads
- Needle thread monitor
- Photoelectric remaining thread monitor for the hook threads
- Sewing drive as DC direct drive

Step motors for material feed

- The step motor technology results in short machine cycle times and guarantees an absolutely precise corner incision.
- Thus, it contributes to a pocket quality as yet unprecedented, combined with high productivity.

New generation of DAC III controls (DÜRKOPP ADLER Control)

- The comprehensive test and monitoring system MULTITEST is integrated in the DACIII.
- A control unit does the control tasks, monitors the sewing cycle and signals operating faults and malfunctions on the control panel.

Sewing equipment and folders

Information concerning the sewing equipment and folders for the various applications can be taken from the sewing equipment sheets of class 745-35 S.
Please direct your enquiries to the DÜRKOPP-ADLER sales offices.

2.2 Declaration of conformity

The machine complies with the European regulations specified in the declaration of conformity or in the installation declaration.

CE

2.3 Optional equipment

By means of a flexible system of optional equipment the sewing unit can be equipped optimally and economically corresponding to the respective application.

● = Standard equipment

O = Optional equipment

Order No.	Optional equipment	S (Speed)	A (straight pocket)	A (slanted pocket)	B (straight pocket)	B (slanted pocket)	D	F
Remaining bobbin thread monitor								
0246 497534	Remaining bobbin thread monitor	O						
Stacking devices								
0745 427524	Universal stacking device (grip stacker) to be positioned for stacking to the side.	O	O	O	O	O		
1970 593144	Flip stacker To be positioned near the machine for stacking to the side.	O	O	O	O	O	O	O
1970 593194	Bundle clamp (incl. table) For the bundling of trousers parts.	O	O	O	O	O		
0745 597604	Blow-out device For blowing out the finished workpieces.	O	O	O	O	O		
0745 597954	Smoother The smoother is used to for transporting short pieces into the stacker or to eject the pieces to be processed. The speed and the working cycle of the smoother can also be programmed.		O	O	O	O	O	O
Automatic feeding devices								

Order No.	Optional equipment	S (Speed)	A (straight pocket)	A (slanted pocket)	B (straight pocket)	B (slanted pocket)	D	F
0745 517734	Automatic feeding, on the left 180-220 mm (with flap 180-200 mm) Automatic feeding of the flap and the additional parts. Can be extended with zipper feed 0745 597774 and 0745 597794.				O	O		●
0745 517744	Automatic feeding, on the right 180-220 mm (with flap 180-200 mm) Automatic feeding of the flap and the additional parts. Can be extended with zipper feed 0745 597764 and 0745 597784.				O	O		●
Piping supports								
0745 337644	Automatic incision device for piping ends PE3 For the cutting of the piping strip in the range from the end of the center knife incision up to the piping ends. The cut length within and outside the sewing unit can be programmed in steps of 1 mm and thus be adapted to the piping projection and various needle distances. A maximum piping projection of 30 mm can be cut. The cutting areas are automatically adapted to the respective seam length as well as to the positioning point. The maximum processable pocket length with piping end incisions is 200 mm (only in conjunction with clamp K16). The incision device for piping ends is already a component of the E-equipment E3503, E3504, E3507, E3508, E3520, E3521, E6503, E6504, E6507, E6508, E6520 and E6521.				O	O		O
0793 024001	Support A3-sized table (297 x 420 mm) for storing piping strips without cutting. For seam lengths of up to 200 mm. Only to be combined with clamps K12 and K13				O	O		O
0793 024051	Support A4-sized table (210 x 297 mm) for storing piping strips without cutting. For seam lengths of up to 220 mm. Only to be combined with clamps K16.				O	O		O
Zipper feeding devices								
0745 597764	Zipper feed, on the right In conjunction with feeding device 0745 517744 For cut-to-length zippers, without slider, total width 24 mm, chain width approx. 4 mm, chain inside with ready-made pockets.				O	O		

Order No.	Optional equipment	S (Speed)	A (straight pocket)	A (slanted pocket)	B (straight pocket)	B (slanted pocket)	D	F
0745 597774	Zipper feed, on the left In conjunction with feeding device 0745 517734 For cut-to-length zippers, without slider, total width 24 mm, chain width approx. 4 mm, chain inside with ready-made pockets.				O	O		
0745 597784	Zipper feed, to the right In conjunction with feeding device 0745 517744 For cut-to-length zippers, without slider, total width 24 mm, chain width approx. 4 mm, chain outside with ready-made pockets.				O	O		
0745 597794	Zipper feed, on the left In conjunction with feeding device 0745 517734 For cut-to-length zippers, without slider, total width 24 mm, chain width approx. 4 mm, chain outside with ready-made pockets.				O	O		
Laser kits								
0745 598144	2-laser kit For expanding the standard supply of 3 laser marking lamps to 5 laser marking lamps. For an easy replacement the laser lights are equipped with a short cable and a plug.		O	O	●	●	●	●
0745 597934	3-laser kit For expanding the existing 5 laser marking lamps to a maximum of 8 laser marking lamps. A expansion to 16 switchable laser lights is possible (additional cable needed). For an easy replacement the laser lights are equipped with a short cable and a plug. With method A only deployable in combination with the 2-laser kit 0745 598144.		O	O	O	O	O	●
Trays								
0745 598224	Tray to the left for small pieces This kit contains the left-sided trays.		O	O	●	●	O	●
0745 598274	Storage table small, slanted Table extension to be used for stacking to the side for the retrieving of parts, for example lining. Size approx. 230 mm x 700 mm	O	O	O	O	O	O	O
1970 593104	Storage table (small) Size approx. 450 mm x 700 mm	O	O	O	O	O	O	O
1970 593114	Storage table (large) Size approx. 600 mm x 800 mm	O	O	O	O	O	O	O

Order No.	Optional equipment	S (Speed)	A (straight pocket)	A (slanted pocket)	B (straight pocket)	B (slanted pocket)	D	F
Light barriers								
0745 598154	Light barrier 2nd Light barrier for Speedpocket	O						
0745 598284	Kit Light barrier Additional light barrier for the 745-35 A with the production of jackets and trousers for the switchable flap detection to the left and to the right and when equipped with a slanted knife carrier also for automatic flap angle detection. Additional light barrier for the 745-35 B with the production of jackets, equipped with slanted knife carrier for automatic flap angle detection.		O	O	O	O		●
Vacuum								
0745 598234	Suction device For a precise positioning of the workpieces, to be connected to the in-house vacuum unit Note: If no in-house vacuum unit is available, a vacuum blower has to be ordered additionally.	O	O	O	●	●	●	●
1970 593314	Vacuum (side channel blower) For a precise positioning of the workpieces without in-house vacuum unit, the side channel blower can be linked to the stand.	O	O	O	O	O	O	O
Miscellaneous								
0745 567554	Pneumatic clamp adjustment For an automatic adjustment of the clamps when changing the folder		O	O	●	●	●	●
0745 597514	Downholder and Pocket bag clamp Downholder for smoothing out the fullness caused by darts with a clamping device for pocket bags	O	O	O	O	O		
0745 597524	Waistband clamp For smoothing out the fullness.		O	O	O	O		
0745 597614	Loading device lining loop triangle With this equipment the lining loop triangle is automatically fed with the pocket bag when sewing inside pockets.				O	O		O
0745 597874	Kit Pocket bag on flap NA10 and NA12 for 745-35B For the simultaneously attaching of two pocket bag halves and flap. Only in conjunction with the E-equipment E 3103, E 3503, E 6103 or E6503 for NA10 as well as E 3107, E 3507, E6107 or E6507 for NA12.				O	O		

Order No.	Optional equipment	S (Speed)	A (straight pocket)	A (slanted pocket)	B (straight pocket)	B (slanted pocket)	D	F
0745 597894	Kit: Pocket bag clamp for small pocket bags & for front positioning point		O	O	O	O		O
0745 598134	Sewing light with transformer	O	O	O	O	O	O	O
0745 598164	Kit: Piping blow-on device for the 745-35 A For the blowing on of the piping with large piping projections. Combination only in connection with clamp K22		O	O				
0745 598254	Set of castors Set of transport castors for the moving of the sewing unit without external devices	O	O	O	O	O	O	O
0745 598264	Height adjustment pedal For fastening of the pedal onto the stand and setting the pedal height.	O	O	O	O	O	O	O
B169 590074	Tape feed automatic cutting (step motor driven) Automatic cutting and feeding of a reinforcement strip pulled from a roll. Start time and cutting time can be programmed corresponding to the pocket.		O	O	O	O	O	O
Flap Clamps								
0745 417534	Flap clamp Flap clamp for K22 on the left, for the use of the clamp with flap	O	O	O				
0745 417544	Flap clamp Flap clamp for K22 on the right, for the use of the clamp with flap	O	O	O				

2.4 Subclasses

In the following chapters the characteristics of the individual subclasses of the machine will be highlighted.

2.4.1 745-35 S

Basic sewing unit for the runstitiching of rectangular piped pockets.

The piping strips and additional parts are fed manually.

Pocket length 20-200 mm (with flap max. 180 mm)

In order to complete the unit a sewing equipment is to be selected.

The setting of the corner knives with regard to the pocket length is done manually.

The programmed pocket length L1 has to be set at the corner knife station. All other pocket lengths (sewing in sequence) are executed as consecutive steps.

The distance between the corner knifes and the seam can be adjusted manually. The whole knife block can be swung out to make setting and service work possible.

Control panel BF4 for the programming of various pocket programs.

9 sewing programs are available.

Up to a maximum of 7 sewing programs can be sewn in a sequence.

Parameter for pocket length, seam tacking oder stitch condensing, stitch lengths, sewing speed, center knife and corner knife corrections, transport speeds.

2.4.2 745-35 A

Sewing unit for the automatic runstitching of piped, flap and welt pocket openings with, depending on the selected kit, slanted or rectangular pocket corners.

The piping strips and additional parts are fed manually.

Pocket length 20-220 mm (with flap max. 220 mm)

The setting of the corner knives in relation to the pocket length can be set via step motor. The distance between the corner knifes and the seam can be adjusted manually. The complete knife bracket can be swung out for setting and service operations.

For the execution of slanted pocket the following additional points apply:

The slanted pocket corners result from the seam offset of the two seam rows that can be programmed in steps of 0.1 mm. The programmable pocket corner incision - adjustable via two step motors - can be freely selected for the seam beginning and seam end and amounts to a maximum of +/13mm relative to the second seam (to the right).

Large graphic color display BF1CE with decimal key pad and function keys. The user interface can be adapted by the user according to the functions needed. All pocket parameters are freely programmable. Any selected icon is additionally described in an info line available on each window.

2.4.3 745-35 B

Sewing unit for the automatic runstitching of piped, flap and welt pocket openings with, depending on the selected kit, slanted or rectangular pocket corners.

The piping strip is fed automatically. Feeding options of the flap and the additional pieces: from the right, from the left or from both sides.

Pocket length 20-220 mm

The setting of the corner knives in relation to the pocket length can be set via step motor. The distance between the corner knifes and the seam can be adjusted manually. The complete knife bracket can be swung out for setting and service operations.

For the execution with slanted pocket the following additional points apply:

The slanted pocket corners result from the seam offset of the two seam rows that can be programmed in steps of 0.1 mm. The programmable pocket corner incision - adjustable via two step motors - can be freely selected for the seam beginning and seam end and amounts to a maximum of +/- 13mm relative to the second seam (to the right).

Large graphic color display BF1CE with decimal key pad and function keys. The user interface can be adapted by the user according to the functions needed. All pocket parameters are freely programmable. Any selected icon is additionally described in an info line available on each window.

2.4.4 745-35 D

Method D only serves for the matching and sewing of breast welt pockets. The additional parts are fed automatically.

Pocket length 125 mm.

As corner knife station an automatic corner knife station for slanted pocket corners is delivered as standard equipment with the sewing unit.

The setting of the corner knives in relation to the pocket length can be set via step motor. The slanted pocket corners result from the seam offset of the two seam rows that can be programmed in steps of 0.1 mm. The programmable pocket corner incision - adjustable via two step motors - can be freely selected for the seam beginning and seam end and amounts to a maximum of +/- 13mm relative to the second seam (to the right). The complete knife bracket can be swung out for setting and service operations.

Large graphic color display BF1CE with decimal key pad and function keys. The user interface can be adapted by the user according to the functions needed. All pocket parameters are freely programmable. Any selected icon is additionally described in an info line available on each window.

The 12 mm equipment E2116 is part of the subclass

2.4.5 745-35 F

The flap that is being fed from the left can be aligned with a positioning device, allowing for a correct matching of the stripes on the flap. The piping strip is fed automatically.

Pocket length 20-200 mm (with flap max. 180 mm)

Automatic feeding of the flap and the additional parts from the right or the left.

An automatic corner knife station is delivered as standard equipment with the sewing unit.

The setting of the corner knives in relation to the pocket length can be set via step motor. The slanted pocket corners result from the seam offset of the two seam rows that can be programmed in steps of 0.1 mm. The programmable pocket corner incision - adjustable via two step motors - can be freely selected for the seam beginning and seam end and amounts to a maximum of +/13mm relative to the second seam (to the right). The complete knife bracket can be swung out for setting and service operations.

Large graphic color display BF1CE with decimal key pad and function keys. The user interface can be adapted by the user according to the functions needed. All pocket parameters are freely programmable. Any selected icon is additionally described in an info line available on each window.

2.5 Technical data

Technical data	745-35 S
Sewing stitch type	301/Double lockstitch
Number of needles	2
Needle system	2134-85
Needle size [Nm]	80-110
Number of stitches (programmable) [min^{-1}]	2000-3000
Number of stitches on delivery [min^{-1}]	2750
Stitch length (programmable) [mm]	0.5-3
Stitch length at delivery [mm]	2.1
Number of stitches of the stitch condensing [n] (programmable)	1-10
Number of bartack stitches [n] (programmable)	0-5
Seam distance [mm]	8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30
Maximum pocket length [mm]	200
maximum seam offset [mm]	+/- 13
Operating pressure [bar]	6
Air consumption per working cycle approx. [NL]	6
Table height without castors [mm] - min - max	 797 1076
Table height with castors [mm] - min - max	 859 1138
Length, width, height [mm]	1440, 780, 1200
Weight [kg]	approx. 280 (depending on the equipment)
Nominal voltage	1 x 190-240
Frequency	50/60

3 Safety instructions

This section contains basic instructions 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 this can result in serious injury and damage to the machine.

3.1 Basic safety instructions

The machine may only be used as described in this operating manual.

The operating manual must be available at the machine's location at all times.

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

For the following work, the machine must be disconnected from the power supply using the main switch or by disconnecting the power plug:

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

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

Transportation

When the machine is being transported, use a lifting carriage or a forklift. Raise the machine max. 20 mm and secure it against slipping off.

Set-up

The connecting cable must have a power plug approved in the specific country. The power plug may only be connected to the power cable by a qualified specialist.

Operator's obligations

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

All warnings and safety signs on the machine must always be in legible condition and may not be removed. Missing or damaged labels must be replaced immediately.

Requirements to be met by the personnel

The machine may only be set up by qualified specialists.

Maintenance work and repairs may only be carried out by qualified specialists.

Work on electrical equipment may only be carried out by qualified specialists.

Only authorized persons may work on the machine. Every person who works on the machine must have read the operating manual first.

Operation

Inspect the machine while in use for any externally visible damage. Interrupt your work if you notice any changes to the machine. Report any changes to your supervisor. A damaged machine may not be used any more.

Safety equipment

Safety equipment may not be removed or put out of service. If this cannot be avoided for a repair operation, the safety equipment must be refitted and put back into service immediately afterwards.

3.2 Signal words and symbols used in warnings

Warnings in the text are distinguished by color bars. The color scheme is oriented towards the severity of the danger. Signal words specify the severity of a danger:

Signal words

Signal words and the endangerment that they describe:

Signal word	Endangerment
DANGER	Resulting in death or serious injury.
WARNING	Death or serious injury possible.
CAUTION	Moderate to minor injuries possible.
ATTENTION!	Damage possible.

Symbols In the case of dangers to personnel, the following symbols indicate the type of hazard:

Symbol	Type of danger
	General danger
	Danger due to electric shock
	Danger due to sharp objects
	Danger due to crushing

Examples Examples of the layout of the warnings in the text:

DANGER

Type and source of the danger

Consequences in the event of noncompliance

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 not complied with.

WARNING

Type and source of the danger

Consequences in the event of noncompliance

Measures for avoiding the danger

This is what a warning looks like for a hazard that could result in serious injury or even death if not complied with.

CAUTION

Type and source of the danger

Consequences in the event of noncompliance

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 not complied with.

CAUTION

Type and source of the danger

Measures for avoiding the danger

This is what a warning looks like for a hazard that could result in environmental damage if not complied with.

ATTENTION!

Type and source of the danger

Measures for avoiding the danger

This is what a warning looks like for a hazard that could result in material damage if not complied with.

4 Machine description 745-35 S

The Dürkopp Adler 745-35 S is a sewing unit for the automatic runstitching of piped, flap and welt pocket openings with rectangular pocket corners.

The correct operating principle involves a sequence of different steps and requires precise knowledge of all operating controls.The correct operating principle involves a sequence of different steps and requires precise knowledge of all operating controls.

4.1 Sewing unit 745-35 S

The illustration below shows the sewing unit 745-35 S.

Fig. 1: Complete overview 745-35 S

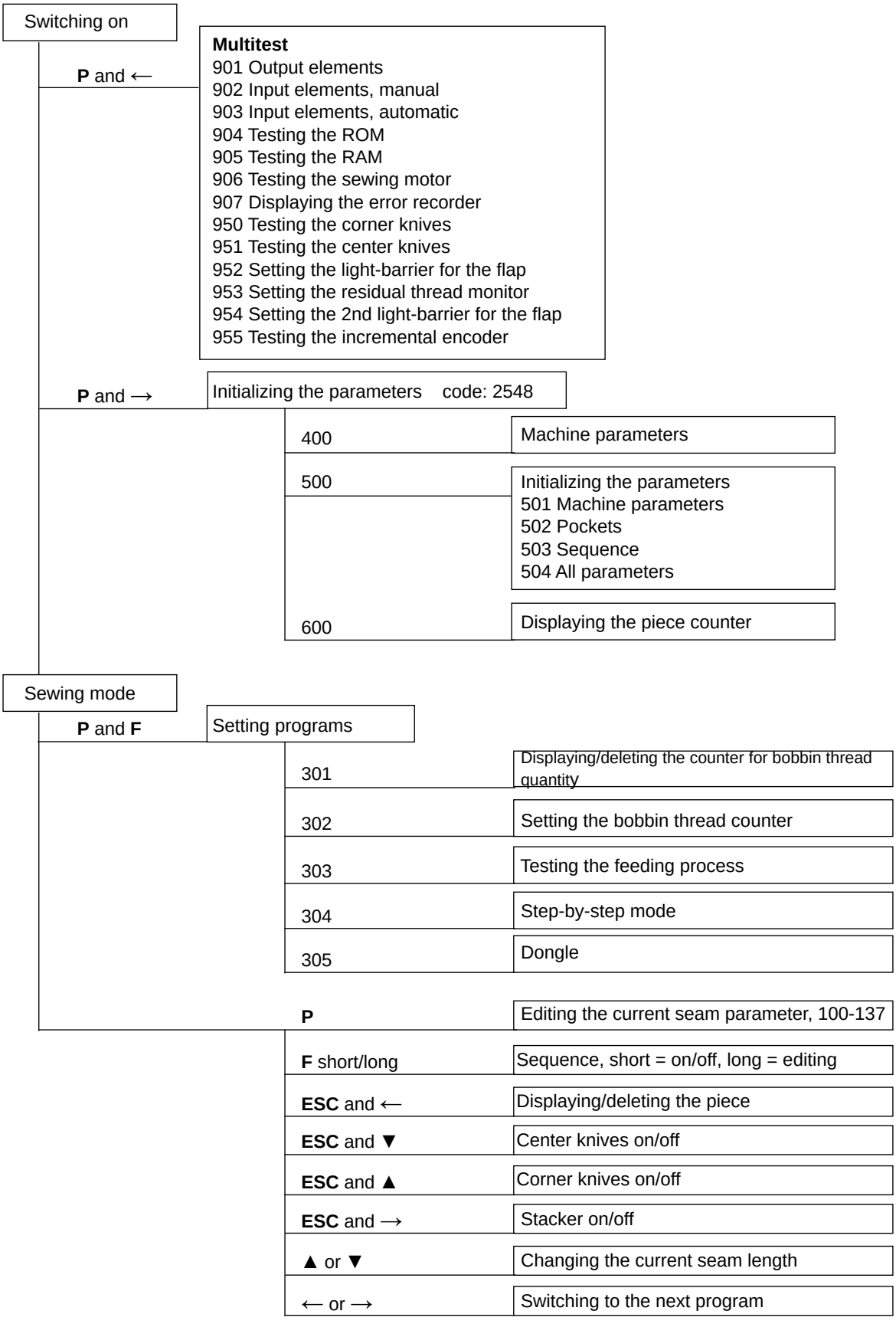
4.2 Software description

The software and all its setting possibilities is explained in detail in the Programming instructions. The programming instructions are available together with the service instructions.

Fig. 2: Control panel 745-35 S

5 Service settings via the software

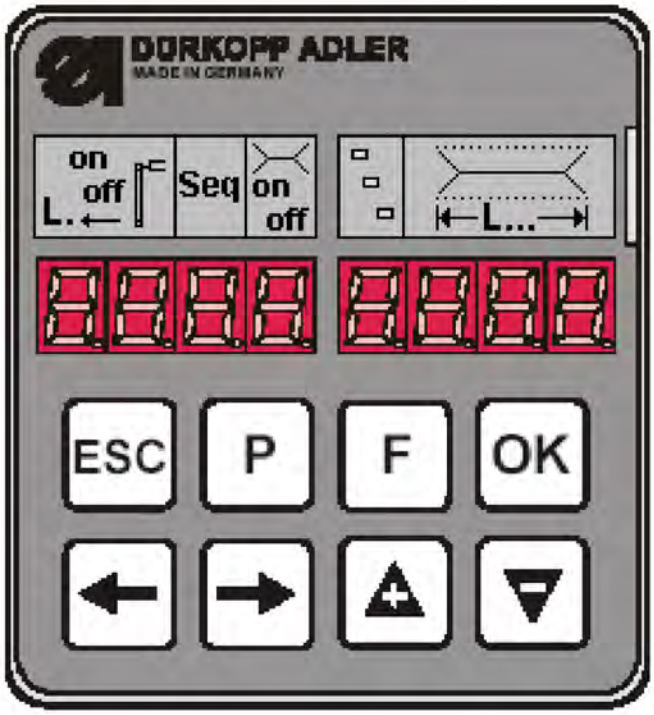
Fig. 3: Structure of menu



5.1 Operation

After switching on the machine is operated via the control panel.

Fig. 4: Operating panel



If you do not press one of the key combinations (**P** and →) or (**P** and ←) within 2 seconds after switching the machine on, the program will switch to the sewing mode.

For this the machine has to first execute a reference run that is started with the pedal.
Until then the following message will be flashing on the display:

Fig. 5: Message after switching on

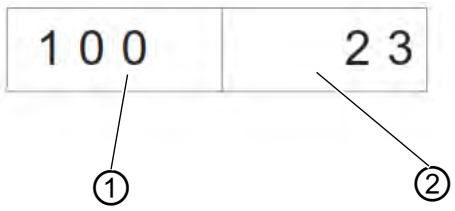
5.1.1 Editing a pocket program

When the machine is in its basic position and in the sewing mode and the key **P** is actuated, you get into the level for editing the current pocket program.

In case the feeding process has been started already, this is not possible. In order to do so, the feeding process had to be canceled, thus bringing the machine back in its basic position.

Selecting a seam parameter

Fig. 6: Selecting a seam parameter



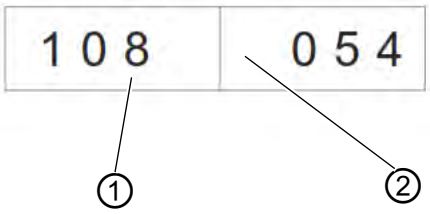
(1) - Parameter number *(2) - Parameter value*

How to select a seam parameter:

1. Press the key **P**.
   ↳ The parameter number (1) flashes.
2. Select the parameter using the arrow keys ▲ and ▼.
3. Press the key OK.
   ↳ The selected parameter is indicated with its current value (2). One digit of the value flashes.

Editing of seam parameters

Fig. 7: Editing a seam parameter



(1) - Parameter number *(2) - Parameter value*

How to edit a seam parameter:

1. Select a seam parameter, 🕮 *2.1.1*.
   ↳ One digit of the parameter value (2) flashes.
2. Change the parameter value (2) using the arrow keys ▲ and ▼.
3. Press the key OK.
   ↳ The new parameter value (2) will be saved.

4. Alternatively press the key **ESC**.

↳ The new setting will not be saved and a reset to the former value occurs.

5. Go to the next digit to be edited by using the arrow keys ← and →.
6. Repeat the steps 2 to 4.

Initializing pocket programs

Upon initializing a pocket program with standard values will be loaded.

Fig. 8: Initializing a pocket program

How to initialize a pocket program:

1. Briefly press the key **F**.

↳ The display changes to the submenu shown above.

2. Press the key **OK** in order to carry out the initialization.
3. Press the key **ESC** in order to stop the initialization.

With a long actuation of the key F all 9 seam programs are initialized. Afterwards the display switches to the mode for the selection of a seam parameter in the current seam program.

Fig. 9: Display after a long actuation of the key F

5.1.2 Editing a sequence

The machine has to be in the sewing mode. With a short actuation of the key **F** the sequence is switched on or off. Up to a maximum of 7 seam programs can be included in one sequence.

Fig. 10: Editing a sequence

How to edit a sequence:

1. Set the machine to the sewing mode.
2. Keep the key **F** for more than 2 seconds pressed.

↳ The display switches to the currently set sequence. The current sequence will be deleted and the first digit after the □ flashes.

3. Change the program number using the arrow keys ▲ and ▼.
4. Select the next position using the arrow keys ← or →.

↳ By pressing the key ← the position to the right of the flashing digit will be deleted.

5. Press the key **OK**.

↳ The editing of the sequence is ended and the display switches back to the sewing mode.

5.1.3 Piece counter

In order to display the piece counter the machine has to be in the sewing mode.

The number of pieces is indicated in the right field of the piece counter display.

Fig. 11: Resetting the piece counter

How to get to the piece counter:

1. Press the keys **ESC** and ← simultaneously.

↳ The daily piece counter will be displayed.

2. Keep the key **OK** pressed for a while in order to set the daily piece counter back to 0.
3. Press the key **ESC** to get back to the sewing mode.

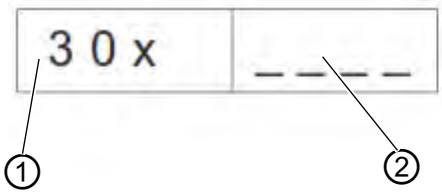
5.2 Setting programs of the machine

The setting programs of the machine can selected and activated as requested.

List of the setting programs	
301	Displaying/deleting the counter for the bobbin thread quantity
302	Setting the counter for the bobbin thread quantity
303	Testing the feeding process
304	Step-by-step mode

How to get to the setting programs:

Fig. 12: Display of the setting programs



(1) - Setting program *(2) - Value*

1. Set the machine to the sewing mode.
2. Press the keys **P** and **F** simultaneously.

↳ The display switches to the setting program mode.

3. Select the setting programs using the arrow keys ▲ and ▼.
4. Press the key **OK** to activate the setting program.
5. Press the key **ESC** to exit the menu.

5.2.1 Displaying/deleting the counter for bobbin thread quantity

The value displayed for the bobbin thread quantity has to be multiplied by 10.

Fig. 13: Display of the setting programs

How to display/delete the counter for the bobbin thread quantity:

1. Select the setting program **Displaying/deleting the counter for the bobbin thread quantity**.
2. Press the key **OK** a long time to reset the value.

↳ The value will be reset to a programmed maximum value.

5.2.2 Setting the counter for the bobbin thread quantity

The value displayed for the bobbin thread quantity has to be multiplied by 10.

Fig. 14: Display of the setting programs

How to set the counter for the bobbin thread quantity:

1. Select the setting program **Setting the counter for the bobbin thread quantity**.

↳ The value of the bobbin thread quantity flashes.

2. Set the value using the arrow keys,▲ and ▼.
   When setting the value to 0 the counting of the bobbin thread quantity is switched off.
3. Press the key **OK**.

↳ The value will be saved.
Now another setting program can be selected.

5.2.3 Testing the feeding process

Fig. 15: Display of the setting programs

How to test the feeding process:

1. Select the setting program **Feeding process**.
2. Press the key **OK** for a while.

↳ The machine switches back to the sewing process.
After the reference run the feeding process will be carried out according to the sewing program.

3. Actuate the pedal in inching operation.

↳ The transport carriage runs in its rear end position. The feeding clamps lift and the flap clamps open.

4. The process can be started anew.
5. Exit the program/process by switching the machine off.

5.2.4 Step-by-step mode

Fig. 16: Display of the setting programs

How to operate the **step-by-step mode**:

1. Activate the setting program **Step-by-step mode**.
2. Press the key **OK** for a while.

↳ The machine switches back to the sewing process.
At the stops at seam beginning and seam end the following message is displayed:

Fig. 17: Step-by-step mode

3. Actuate the pedal.

↳ The sewing process is continued up to the next stop.
At the same time the regular screen is displayed.

4. Repeat step 3 until the end of the sewing process.
5. Exit the program by switching the machine off.

5.2.5 Dongle menu

Note:

In order to save the parameters you need an empty dongle. This can be ordered from Dürkopp Adler AG, the Part-No. is: 9835 901005.

How to navigate throughout the Dongle menu:

1. Press the key **OK** to go back one level lower.
2. Press the arrow key to get one level higher.
3. Press the arrow keys ▲ and ▼ for further selections in the menu levels.

↳ At the same time the right half of the display flashes.

If no dongle is connected to the plug connection X 110 the message **Info 4301** will be displayed.

During the data transmission the right and the left half of the respective menu item flashes.

Displaying the dongle content

Fig. 18: Displaying the dongle content

1. Press the key **OK**.

↳ The following messages can possibly be displayed after this action:

Data dongle **f. e. for the 745-35S**

(To save parameters)

Fig. 19: Data dongle

Boot dongle **f. e. for the 745-35S**

Fig. 20: Boot dongle

Empty dongle (not formatted)

Fig. 21: Empty dongle

An empty dongle has to be formatted prior to using it, 🕮 3.5.6.

1. Press the key **OK**.

↳ The display switches to the menu item **Displaying the dongle content**.

Loading of machine parameters

Fig. 22: Loading the machine parameters

The display switches to the security check:

Fig. 23: Security check

1. Press the key **OK**.

↳ The machine parameters will be uploaded from the dongle onto the control unit.

2. Press the key **ESC**.

↳ The display switches to the menu item **Loading the machine parameters**.

If there are no machine parameters memorized on the dongle, the message **Info 4325** will appear. This message has to be confirmed with the key **OK** in order to continue working.

Loading pocket programs and a sequence

Fig. 24: Loading pocket programs/sequence

The display switches to the security check:

Fig. 25: Security check

1. Press the key **OK**.

↳ The pocket programs and the sequence will be uploaded from the dongle onto the control unit.

2. Press the key **ESC**.

↳ The display switches to the menu item **Loading pocket programs/ sequence**.

If there are no pocket programs memorized on the dongle, the message **Info 4326** will appear. This message has to be confirmed with the key **OK** in order to continue working.

Saving the machine parameters

Fig. 26: Saving the machine parameters

The display switches to the security check:

Fig. 27: Security check

1. Press the key **OK**.

↳ The machine parameters of the sewing unit will be saved on the dongle.

2. Press the key **ESC**.

↳ The display switches to the menu item **Saving the machine parameters**.

Saving pocket programs/ sequences

Fig. 28: Saving the pocket program/sequence

The display switches to the security check:

Fig. 29: Security check

1. Press the key **OK**.

↳ The pocket programs and the sequence will be saved on the dongle.

2. Press the key **ESC**.

↳ The display switches to the menu item **Saving pocket programs/ sequence**.

Formatting the dongle

ATTENTION!

Material damage

By formatting all data saved on the dongle will be irrevocably deleted!

The formatting of the dongle is necessary if in the menu item **Displaying the dongle content** the following message is NOT displayed:

Fig. 30: Data dongle

How to format the dongle:

Fig. 31: Formatting the dongle

The display switches to the security check:

Fig. 32: Security check

1. Press the key **OK**.

↳ The dongle is being formatted.
During the formatting process the display flashes:

Fig. 33: Display formatting the dongle

↳ When the formatting process is finished the menu item **Formatting the dongle** will be displayed again.

2. Press the key **ESC**.

↳ The process is stopped and the display switches back to the menu item **Formatting the dongle**.

5.3 Multitest

The Multitest programs can be accessed by switching the machine on and simultaneously pressing **P** and ←.

How to select a Multitest program:

1. Switch on the machine and simultaneously press the keys **P** and ←.
2. Select the desired program using the arrow keys ▲ and ▼.
3. Press the key **OK** to confirm the program selection.

List of programs:	
901	Testing the output elements
902	Testing the input elements manually
903	Testing the input elements automatically
904	Testing the ROM
905	Testing the RAM
906	Testing the sewing motor
907	Displaying the error recorder
950	Testing the corner knives
951	Testing the center knives
952	Setting the light-barrier for the flap
953	Setting the residual thread monitor
954	Setting the 2nd light-barrier for the flap
955	Testing the incremental encoder

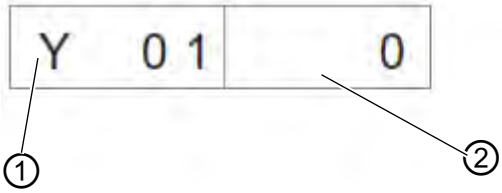
5.3.1 Testing the output elements

*Fig. 34: Program **Testing the output elements***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 35: Testing the output elements



(1) - Output number *(2) - Status*

↳ To the left flashes the output number (1).
To the right its current status (2) is displayed.
0 = switched off
1 = switched on

2. Select the output number using the arrow keys ▲ and ▼.
3. Press the key **OK** to switch the output on or off.

When switching to the next output the status of the former one is maintained.

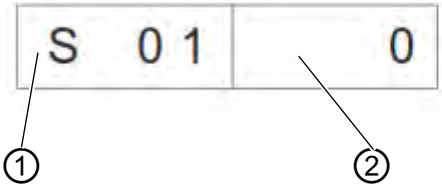
5.3.2 Testing the input elements manually

*Fig. 36: Program **Testing the input elements***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 37: Testing the input elements



(1) - Input number *(2) - Status*

↳ To the left flashes the input number (1).

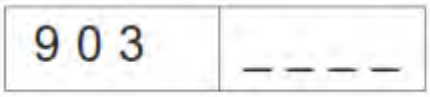
To the right its current status (2) is displayed.
0 = switched off
1 = switched on

2. Select the input number using the arrow keys ▲ and ▼.
3. Press the key **OK** to switch the input on or off.

When switching to the next input the status of the former one is maintained.

5.3.3 Testing the input elements automatically

*Fig. 38: Program **Testing the input elements automatically***



1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 39: Testing the input elements

↳ To the right the status of the input element that has been changed last is displayed.

5.3.4 Testing the ROM

*Fig. 40: Program **Testing the ROM***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 41: Testing the ROM

↳ Screen after the test:

Fig. 42: Testing the ROM

↳ Checksum: 1 = OK; 0 = Error

5.3.5 Testing the RAM

*Fig. 43: Program **Testing the RAM***

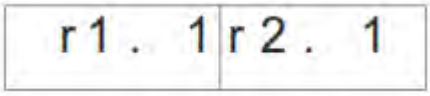
1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 44: Testing the RAM

↳ Screen after the test:
1 = OK; 0 = Error

Fig. 45: Testing the RAM



5.3.6 Testing the sewing motor

*Fig. 46: Program **Testing the sewing motor***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 47: Testing the sewing motor

2. Press the keys **+** and **-** to set the speed in steps of 100 rpm.

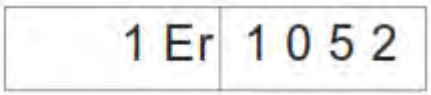
5.3.7 Displaying the error recorder

*Fig. 48: Program **Displaying the error recorder***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 49: Displaying the error recorder



2. Press the keys **+** and **-** to view the last 10 errors.

5.3.8 Testing the corner knives

↳ The display switches to this screen:

Fig. 50: Testing the corner knives

↳ In the right field the current seam length of L1 will be indicated flashing.

1. Press the key **P** to change the corner knives up and down.

5.3.9 Checking the center knife activation

↳ The display switches to this screen:

Fig. 51: Checking the center knife activation

1. Press the key **F** to switch the center knives on or off.

5.3.10 Setting the light-barrier for the flap

*Fig. 52: Program **Setting the light barrier for the flap***

1. Swing out the folding station before activating the program.
2. Put some fabric underneath the feeding clamp.
3. Press the key **OK**.

↳ The status of the light barrier for the flap scanning will be indicated flashing in the right field.
At reflection = LS 1
No reflection = LS 0

Fig. 53: Setting the light-barrier for the flap

↳ The following outputs will be switched on:
Lower the feeding clamps to the left and to the right,
close the folding sheets,
close the flap clamps,
move the feeding clamp into the loading area.

4. Align the light barrier to the center of the reflecting foil.
At the same time check the area of the seam beginning to the seam end on the clamp.
5. Determine the distance from the switching point of the light barrier to the needles. In order to do so put a paper model having the size of a flap under the flap clamp.
6. Push the feeding clamp from the feeding area towards the machine head until the light barrier does not have a reflection any longer.
7. Measure the distance from the front edge of the paper model to the needles.

↳ This value has to be seized in the machine parameters.

8. Switch the machine off and at the next switching on simultaneously keep the keys **P** and → pressed to activate the program level for the machine parameters (400) (Code 2548).
9. Enter the distance in 1/10 mm in the menu point 406.

The LEDs on the light barrier have the following functions:

- Orange LED on = reflection present
- Orange LED off = no reflection
- Green LED on = switching signal steady

If the green LED does not shine, the light barrier has to be either cleaned, adjusted, exchanged or the reflecting foil to be replaced.

5.3.11 Optional equipment - Setting the residual thread monitor

In order to be able to set the residual thread monitor the following preparations have to be taken:

- Remove the upper part of the bobbin case with the bobbin.
- Insert an empty bobbin into the upper part of the bobbin case.
- Select program **953 Setting the residual thread monitor**.

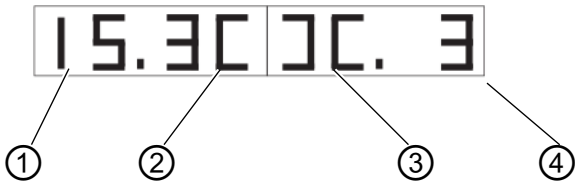
How to align the light barriers of the residual thread monitor:

*Fig. 54: Program **Setting the residual thread monitor***

1. Press the key **OK**.

↳ The display switches to this screen:

Fig. 55: Setting the residual thread monitor



(1) - Current reflection value 15
(2) - Bar if > 8
(3) - No bar, value < 8
(4) - Current reflection value 3

2. Turn the empty bobbin in a way that a reflection occurs at the bobbin hub.

↳ The intensity of the reflection is indicated by a number between 1 and 15.
If the value is above the threshold value (8), a bar appears on the display and an acoustic signal is heard.

3. Press the key **ESC** to exit the program.

Note:

In case the transmission power is too important and the residual thread monitor is already triggered when the hook is just being illuminated, the transmission power can be reduced. The same is true if the transmission power is too low.

How to set the transmission power of the residual thread monitor:

Fig. 56: Setting the residual thread monitor

(1) - Value left residual thread monitor *(2) - Value right residual thread monitor*

1. Keep the key **F** pressed for a while to change the values of the transmission power of the residual thread monitors.
   15 = high transmission power
   1 = low transmission power
2. Change the value as desired:
   ← = Decreasing the value for the left residual thread monitor
   → = Increasing the value for the left residual thread monitor
   ▲ = Increasing the value for the right residual thread monitor
   ▼ = Decreasing the value for the right residual thread monitor
3. Press the key **OK** to confirm the setting.
4. Press the key **ESC** to go one level back.

5.3.12 Optional equipment setting the 2nd light-barrier for the flap

*Fig. 57: Program **Setting the light barrier for the flap***

1. Swing out the folding station before activating the program.
2. Put some fabric underneath the feeding clamp.
3. Press the key **OK**.

↳ The status of the light barrier for the flap scanning will be indicated flashing in the right field.
At reflection = LS 1
No reflection = LS 0

Fig. 58: Setting the light-barrier for the flap

↳ The following outputs will be switched on:
Lower the feeding clamps to the left and to the right,
Close the folding sheets,
Close the flap clamps,
Move the feeding clamp into the loading area.

4. Align the light barrier to the center of the reflecting foil. At the same time check the area of the seam beginning to the seam end on the clamp.
5. Determine the distance from the switching point of the light barrier to the needles. In order to do so put a paper model having the size of a flap under the flap clamp.
6. Push the feeding clamp from the feeding area towards the machine head until the light barrier does not have a reflection any longer.
7. Measure the distance from the front edge of the paper model to the needles.

↳ This value has to be seized in the machine parameters.

8. Switch the machine off and at the next switching on simultaneously keep the keys **P** and → pressed to activate the program level for the machine parameters (400) (Code 2548). The menu point 409 has to be activated.
9. Enter the distance in 1/10 mm in the menu point 410.

5.3.13 Testing the incremental encoder

*Fig. 59: Program **Testing the incremental encoder***

1. Swing out the folding station before activating the program.
2. Press the key **OK**.

↳ In the right half the current value of the incremental encoder is displayed.

Fig. 60: Display incremental encoder

↳ By moving the feeding clamps the value of the incremental encoder is altered.

3. Press the key **P** to start the reference run of the feeding clamp.
4. After the reference run the feeding clamp's movement to the front position (450.0) can be started by pressing the key →.

↳ After the movement the current position is indicated on the left display.

5. After the reference run the feeding clamp's movement to the rear position (150.0) can be started by pressing the key .
6. The speed of the feeding clamp is altered by actuating the key **F** (steps: 10%, 50%, 80%, 100%).
7. The feeding clamps are lifted or lowered by actuating the keys **+** and **-**.
8. With the key **OK** the motor is switched off.

↳ The feeding clamp can be moved manually again.

5.4 Table Seam parameters

How to get to the seam parameters:

1. Navigate to the main level.
2. Press the key **P**.

↳ This is how you get to the programming level.

3. Briefly press the key **F**.

↳ The current seam program is initialized.

4. Keep the key **F** pressed for a while.

↳ All seam programs are initialized.

Number Menu item	Description	Minimum value	Maximum value	Standard value
100	Seam length in mm	20	180	180
101	Stacker on / off			on
102	Center knives on / off			on
103	Center knife correction seam beginning 1/10 mm	-9.9	9.9	0
104	Center knife correction seam end 1/10 mm	-9.9	9.9	0
105	Corner knives on / off			on
106	Corner knife correction seam beginning 1/10 mm	-20	20	0
107	Corner knife correction seam end 1/10 mm	-20	20	0
108	Stitch length 1/10 mm	2.0	3.0	2.5
109	Speed	2000	3000	2750
110	Sewing motor soft start on / off			on
111	Sewing motor number of soft start stitches	1	20	2
112	Sewing motor soft start speed	500	900	900
113	Clamp mode 0 = lower left and right feeding clamp simultaneously 1 = lower left feeding clamp first 2 = lower right feeding clamp first			0
114	Positioning point 0 = front 1 = center 2 = rear			0
115	Positioning point offset mm	1	170	90
116	Type of seam tightening seam beginning 0 = bartack 1 = stitch condensation			1
117	Number of condensed stitches / bartacks Stitch length 1/10 mm	1	10	4

Number Menu item	Description	Minimum value	Maximum value	Standard value
118	Stitch length condensed stitches / bartacks Seam beginning 1/10 mm	0.5	3.0	1.0
119	Number of bartack stitches seam beginning	1	5	3
120	Type of seam tightening seam end 0 = bartack 1 = stitch condensation			1
121	Number of condensed stitches seam end	1	10	4
122	Stitch length condensed stitches / bartacks Seam end 1/10 mm	0.5	3.0	1.0
123	Number of bartack stitches seam end	1	5	3
124	Material feed type 0 = material moves to inserting position 1 = material moves to stacking position 2 = no move, in stacking position			2
125	Type of waiting position 0 = feeding clamp moves to waiting position 1 = feeding clamp stays in stacking position			1
126	Feed stroke to the stacking position	1	100	40
127	Loading speed %	10	100	80
128	Return speed %	10	100	80
129	Downholder on / off			on
130	Sewing mode 0 = fix seam length 1 = light barrier for flap scanning			0
131	Light barrier correction seam beginning 1/10 mm	-20	20	0
132	Light barrier correction seam end 1/10 mm	-20	20	0
133	Feed stroke to the waiting position	1	515	100
134	Max. flap length	30	180	180
135	Flap clamp on / off			on
136	Pedal mode 0 = regular 1 = pedal has to be brought to basic position before the next step 2 = pedal actuation for a move to sewing position (flap clamp)			0
137	2nd Light barrier activated 0 = 1st Light barrier activated 1 = 2nd Light barrier activated			0

5.5 Machine parameters

How to get to the machine parameters:

1. Switch the machine on and simultaneously keep the keys **P** and → pressed.

↳ The machine will ask for an access code.

2. Enter the code: 2548

Number Menu item	Description	Min. value	Max. value	Standard value
400	Submenu Machine configuration			
401	Stacker available			1 = available
402	Downholder available			1 = available
403	Thread monitor on / off			1 = on
404	Needle distance (10,12)			10
405	Max. seam length 180 / 200	180	200	180
406	Distance light barrier - needles 1/10 mm	0	375	55
407	Distance of corner knives seam end to needles	1	375	130
408	Residual thread monitor available			1 = available
409	2nd light barrier available			1 = available
410	Distance 2nd light barrier - needles 1/10 mm	1	375	55
500	Initializing the parameters			
501	Initializing the machine parameters			
502	Initializing the pocket parameters			
503	Initializing the sequence			
504	Initializing all parameters			
600	Displaying the piece counter			

Initializing the programs

1. Select the initialization programs (501 to 504) with the arrow keys ▲ and ▼.
2. Press the key **OK**.

↳ In the right half of the display flashes **InI**.

3. Press the key **K** for a while to initialize the programs 501 to 504.

Machine parameters

Fig. 61: Initializing the machine parameters

↳ After the initializing of the machine parameters with the standard values, the parameter 401-407 have to be adjusted to the machine's equipment.

Pocket parameters

Fig. 62: Initializing the pocket parameters

↳ After initializing the pocket parameters the standard values are loaded.

Sequence

Fig. 63: Initializing the sequence

↳ After the initializing the sequence containing the standard values is loaded.

All parameters

Fig. 64: Initializing all parameters

↳ Initializing all parameters, that is loading the machine parameters, pocket parameters and the sequence with the standard values.

5.6 Error messages/operating status indications

Error/Info	Meaning	Remedial action
Control unit		
1051	Sewing motor Timeout • Cable to the sewing motor's reference switch faulty • Reference switch faulty	• Replace the cable • Replace the reference switch
1052	Excess current sewing motor • Sewing motor cable faulty • Sewing motor faulty • Control unit faulty	• Replace the sewing motor cable • Replace the sewing motor • Replace the control unit
1053	Mains voltage too high	Check the mains voltage
1055	Sewing motor overload • Sewing motor is blocked/rough-running • Sewing motor faulty • Control unit faulty	• Eliminate the blocking/rough-running • Replace the sewing motor • Replace the control unit
1056	Sewing motor overheat • Sewing motor rough-running • Sewing motor faulty • Control unit faulty	• Eliminate the rough-running • Replace the sewing motor • Replace the control unit
1058	Sewing motor speed • Sewing motor faulty	• Replace the sewing motor
1062	Sewing motor IDMA autoincrement • Dysfunction	• Switch the machine off and on again
1302	Sewing motor dysfunction • Control unit receives no impulses from impulse transmitter in motor	• Check the cable from impulse transmitter in motor to control unit
1342-1344	Sewing motor dysfunction Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
2101	Stepping motor X-axis timeout referencing • Cable to the reference switch faulty • Reference switch faulty	• Replace the cable • Replace the reference switch
2103	Stepping motor feed • Clamp (X-axis) has step loss	• Check whether feeding clamp is rough-running
2152	Stepping motor X-axis excess current	• Replace stepping motor X-axis • Replace the control unit
2153	Stepping motor X-axis excess voltage • Mains voltage too high	• Check the mains voltage
2156	Stepping motor X-axis overheat • Stepping motor X-axis rough-running • Stepping motor X-axis faulty • Control unit faulty	• Eliminate the rough-running • Replace stepping motor X-axis • Replace the control unit

Error/Info	Meaning	Remedial action
2162	Stepping motor X-axis IDMA autoincrement dysfunction	Switch the machine off and on again
3100	Machine control voltage Temporary voltage drop	Check the mains voltage
3101	Machine power voltage Temporary voltage drop	Check the mains voltage
3102	Machine sewing motor voltage Temporary voltage drop	Check the mains voltage
3103	Machine stepping motor voltage Temporary voltage drop	Check the mains voltage
3107	Machine temperature • Ventilation openings obstructed • Ventilation grid soiled	• Check the ventilation openings • Clean the ventilation grid
3210	Broken thread	Thread in the thread again
3215	Counter for the bobbin thread quantity zero (Bobbin empty)	Insert a full bobbin
3220	Empty bobbin	Insert a full bobbin
3500-3507 3520-3530 3540 3545 3721 3722	Error control command interpreter/motor synchronization Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
Dongle		
4301	No dongle plugged in on the control	Plug in the correct dongle on the control unit
4304	Wrong dongle type, for the memorizing of data a data dongle has to be available	Dongle needs to be formatted
4320	Security check before dongle formatting	Key **OK** → formatting Key **ESC** → cancel
4321	Security check before memorizing the machine parameters on the dongle	Key **OK** → memorize Key **ESC** → cancel
4322	Security check before memorizing the pocket parameters on the dongle	Key **OK** → memorize Key **ESC** → cancel Info 4323
4323	Security check before uploading machine parameters from the dongle to the control unit	Key **OK** → memorize Key **ESC** → cancel
4324	Security check before uploading pocket parameters from the dongle to the control unit	Key **OK** → memorize Key **ESC** → cancel
4325	No machine parameters can be loaded from the dongle to the control unit since no machine parameters have been memorized.	Use a dongle with machine parameters
4326	No pocket parameters can be loaded from the dongle to the control unit since no pocket parameters have been memorized.	Use a dongle with pocket parameters

Error/Info	Meaning	Remedial action
6551- 6554 6651- 6653 6751- 6761	Error machine head position/ AD-converter / processor error Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
6952	Error stepping motor drive Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
7451 7453 7454	Communication test interface Internal error	• Switch the machine off and on again
7452 7455	Communication test interface • Transmission fault • Cable communication test interface faulty • Internal error	• Eliminate the disturbance source • Replace the cable • Switch the machine off and on again
7551- 7555 7558 7559	Communication control panel interface Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
7556 7557	Communication control panel interface • Transmission fault • Cable control panel interface faulty	• Eliminate the disturbance source • Replace the cable
8151 8156- 8159	Error IDMA • Dysfunction • Control unit faulty	• Switch the machine off and on again • Replace the control unit
8152- 8154	Error IDMA Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
8251 8255	Error booting ADSP/booting Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
8252 8257 8258/ 8253 8256 8254	Error booting ADSP/ booting XILINX/ booting Dysfunction	Switch the machine off and on again
8351 8801- 8805 8806 8890 8891	Error testpins/ signal-/ event processing/ memory wrapper / list of functions Internal error	• Switch the machine off and on again • Software update • Inform the DA-Service
System		
Info 9001	Corner knife station is swung out	Swing the corner knife station in
Err 9001	Corner knife station is swung out during the sewing process. Step back on the pedal, afterwards the transport carriage drives to the rear; start the process.	Check/ adjust the fixation of the corner knife station
Info 9002	Folding station is swung out	Swing in the folding station

Error/Info	Meaning	Remedial action
Err 9002	Folding station is swung out during the sewing process. Step back on the pedal, afterwards the transport carriage drives to the rear; start the process.	Check/ adjust the fixation of the folding station
9003	Wrong needle position before sewing start	Manually turn the hand wheel to the thread lever's lifted position
9601	Pedal was stepped back during the sewing process	To cancel actuate the pedal once more. Afterwards the feeding clamp drives to its rear position
9604	Light barrier (S4) for the fabric removal not activated	Set the light barrier (S4) for the fabric removal
9700	Folder not lifted	Correct the setting of the folder (mechanical collision, check switch S8)
9701	Folder not lowered	Correct the setting of the folder (mechanical collision, check switch S8)
9710	End switch feeding clamp activated	Check the fabric feed and the end switch
9720	Error at flap scanning with light barrier	Check the reflecting foil; Check the alignment of the light barriers
9721	Flap was positioned in front of the front positioning point	Position the flap correctly
9722	Flap overlaps the maximum sewing area (behind the rear positioning point)	Check the flap size, position the flap correctly
9723	Fluff at the flap beginning	Feed flaps with smooth edges, check the reflecting foil
9726	Flap to big or the reflecting foil is soiled or faulty	Check the flap size and the reflecting foil
9730	Corner knife at seam beginning cannot be reached	Change the current seam length or the positioning point of the current seam or change L1 (adjust the corner knife distance)
9800	Hardware error DC motor control	Check the DC motor, DC controller and cable, check the power supply
9900	Faulty machine parameters (Checksum error)	Initialize the machine parameters once again (test program); set the machine parameters
9901	Faulty pocket sequence (Checksum error)	Initialize the pocket sequences once again Adjust the pocket sequences
9902	Faulty pocket program (Checksum error)	Initialize the faulty pocket programs (Test program); Adjust the pocket programs
reF	Request to carry out the reference run after switching on the machine	Step back on the pedal
Current seam length flashes	Corner knife at seam beginning cannot be reached	Change the current seam length or the positioning point of the current seam or change L1 (adjust the corner knife distance)

5.7 Input elements

S1	Needle thread monitor left needle
S2	Needle thread monitor right needle
S3	Folder lowered
S4	Folding device swiveled in
S5	Knife bracket swiveled in
S6	Light barrier workpiece removed/ hood monitoring
S7	Pedal forwards
S8	Pedal backwards
S24	2nd light barrier for the flap scanning
S21	Light barrier for the flap scanning
S100	Reference switch sewing motor
S101	Reference switch feeding clamp

5.8 Output elements

Y1	Open the needle thread scissors
Y2	Lower the center knife
Y3	Blow out fluff
Y4	Open the hook thread clamp
Y5	Close the hook thread scissors
Y6	Close the thread tension
Y7	Lower left feeding clamp
Y8	Lower right feeding clamp
Y9	Lift off the folders
Y10	Lower the folders
Y11	Close the folding sheets
Y12	Open the flap clamp
Y13	Downholder on
Y14	Stacker nipper forward
Y15	Swing out the stacker shackle
Y27	Knife bracket seam beginning
Y28	Knife bracket seam end

6 Operating instructions

The Dürkopp Adler 745-35 S is a sewing unit for the automatic runstitching of piped, flap and welt pocket openings with rectangular pocket corners.

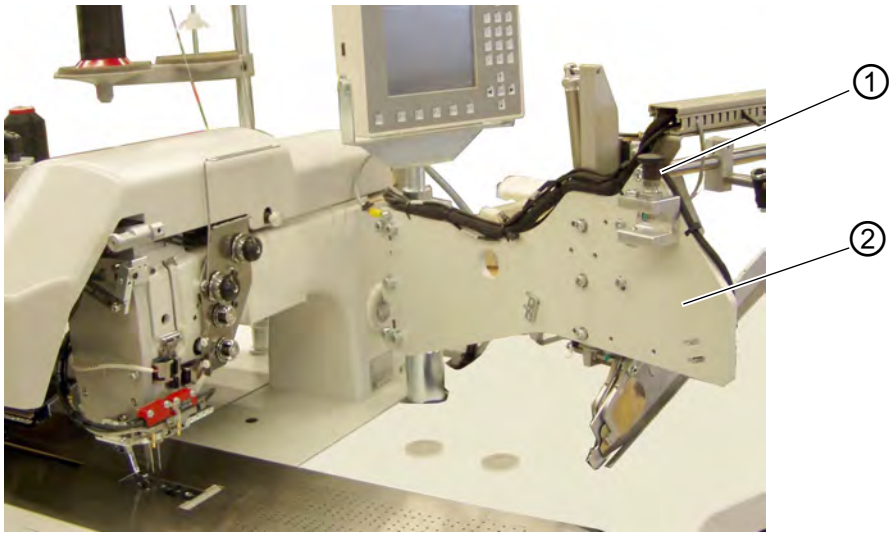
Fault-free operation is necessary in order to achieve a good sewing result.

6.1 Swing the folding station aside.

For operations at the sewing point (threading the needle threads, needle change etc.) the whole folding station with folder and light barriers can be swung to the right.

- Pull the knob (1) in order to unlatch the lock
- Swing the complete folding station (2) with folder to the right.

Fig. 65: Swinging the folding station



(1) - Knob/lock *(2) - Folding station*

Note:

With the sewing unit switched on, a safety message appears on the screen of the control panel.

Fig. 66: Message “Folding station swung out”

- The sewing point is freely accessible.

Swinging the folding station back

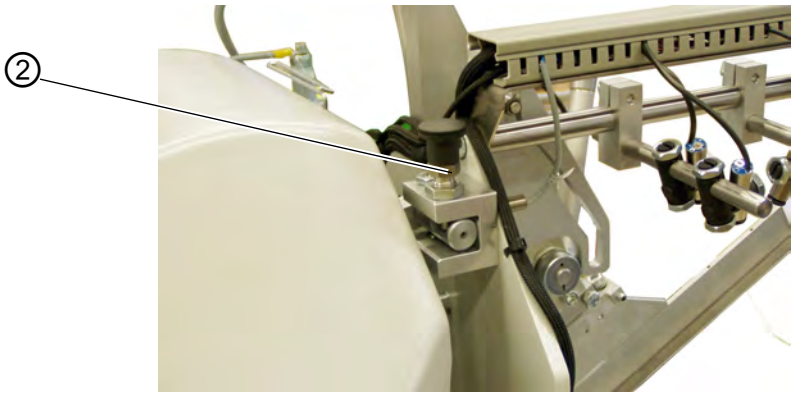
ATTENTION!

Material damage!

After being swung back the folding station must click into lock 2.

- Swinging the folding station back

Fig. 67: Folding station engaged



(2) - Knob/lock

6.2 Pushing the covering hood back and removing the fabric sliding sheets

WARNING

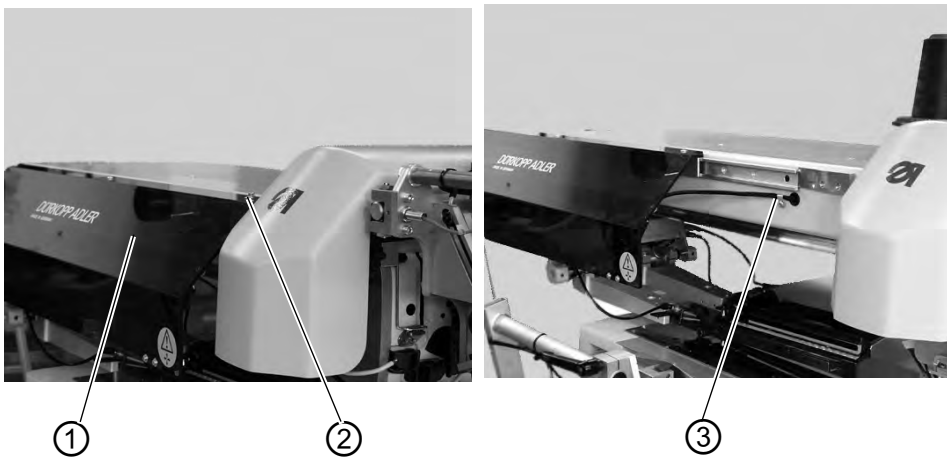
Caution: Danger of injury!

Turn off the main switch. Push the covering hood back and remove the fabric sliding sheet ONLY with the sewing unit switched off.

- Switch the main switch off

For a better accessibility of the feeding clamps the covering hood can simply be displaced.

Fig. 68: Pushing the covering hood



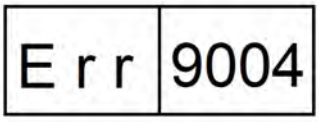
(1) - Covering hood
(2) - Screw
(3) - Cable Light barrier 1

Pushing the covering hood back

- Loosen the screw (2) and the covering hood (1).
- Push the covering hood 1 to the left. The feeding clamps are accessible.
- Push the covering hood 1 to the right again until you hear it snapping in.

When the covering hood is pushed back, a safety message appears on the display:

Fig. 69: Message covering hood



Changing the hook thread bobbins:

- Lift the fabric sliding sheet (2) in the area of the recess (3) on the table top and swing it to the left.

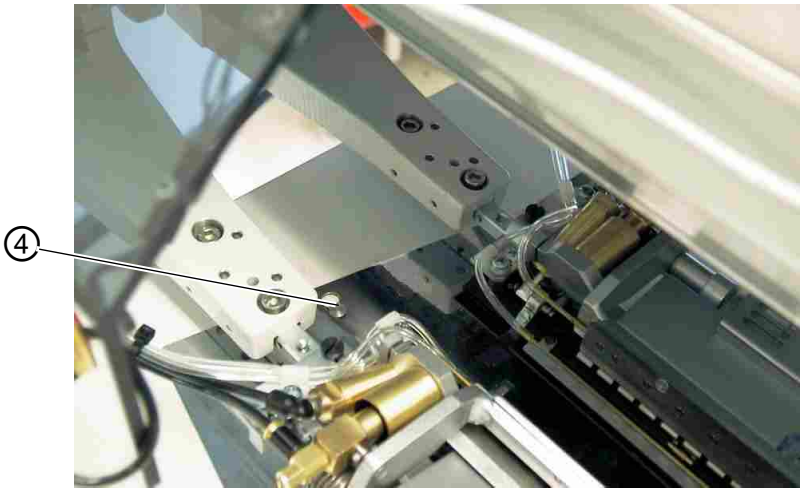
Fig. 70: Swinging the fabric sliding sheet aside

(2) - Fabric sliding sheet *(3) - Recess in the table top*

For a complete removal (for maintenance and adjusting operations):

- Lift off the fabric sliding sheet at the pin (4).

Fig. 71: Completely removing the fabric sliding sheet



(4) - Pin

6.3 Tilting up the machine head

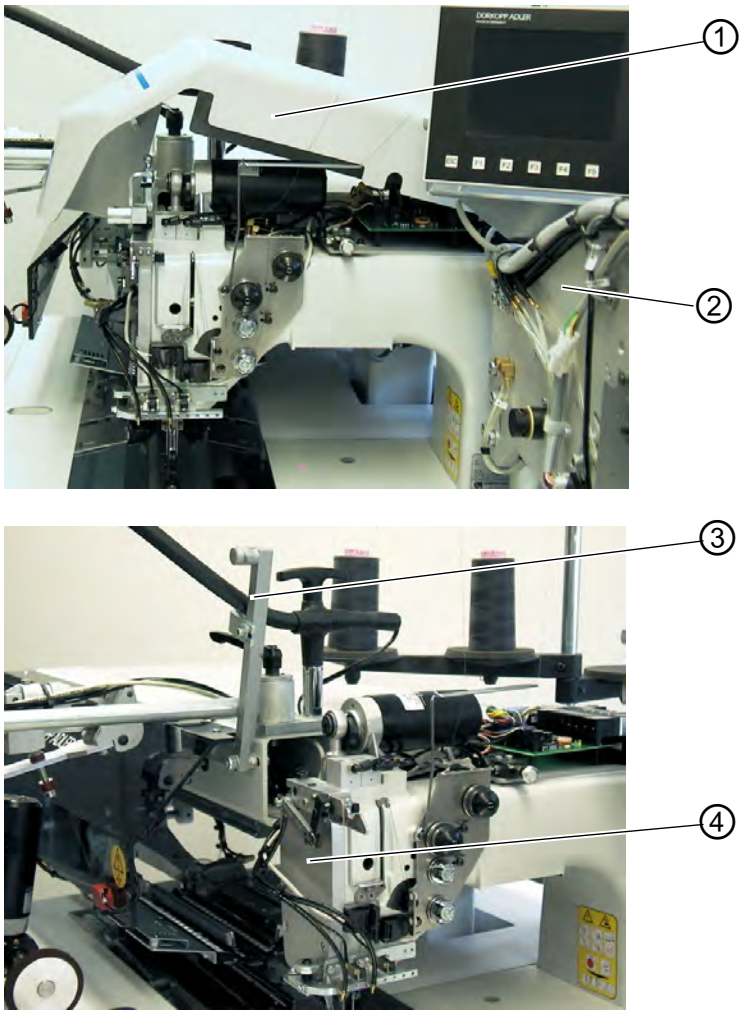
For maintenance work the machine head can be tilted up. For this purpose the transport carriage must be in its rear end position.

WARNING

Caution: Danger of injury!

Turn off the main switch.

Fig. 72: Tilting up the machine head I



(1) - Covering hood
(2) - Folding station
(3) - Locking lever
(4) - Face cover

Fig. 73: Tilting up the machine head II

(5) - Fabric sliding sheet

Tilting up the machine head.

- Remove the covering hood (1). For this purpose lift the covering hood at the front so that the catch is released. Carefully lift the covering hood upwards.
- Swing the folding station (2) out by 90°.
- Swivel the locking lever (3) up.
- Lift the left fabric sliding sheet (5) at the front and swing it to the left.
- Lift the machine head in the area of head cover (4) and tilt it up carefully. The latch (6) snaps in additionally. The space under the machine table is accessible for cleaning now.

Swinging the machine head back

ATTENTION!

Material damage!

Hold the machine head tight until it is at rest completely.

- Hold the machine head tight in the area of head cover (4).
- Release latch (6).
- Swing the machine head back carefully.

Fig. 74: Releasing the latch

(6) - Latch

- Insert the fabric sliding sheet.
- Swivel the locking lever (3) down.
- Swing the folding station (2) back and let its locking lever click in.
- Put on the covering hood (1) and let it snap in again.

6.4 Needles and threads

Needle system: 2134-85

Recommended needle size

- Nm 90 for thin material
- Nm 100 for medium-weight material
- Nm 110 for heavy-weight material

High sewing security and good sewability are achieved with the following core threads:

- Two-ply polyester endless polyester core-spun (e.g. Epic Poly-Poly, Rasant x, Saba C,...)
- Two-ply polyester endless cotton core-spun (e.g. Frikka, Koban, Rasant,...)

If these threads are not available, the polyester fiber or cotton threads listed in the table can also be sewn.

Often two-ply core threads are offered by the thread manufacturers with the same designation as three-ply polyester fiber threads (3cyl.-spun).This causes uncertainty with regard to twisting and thread thickness.

When in doubt, unravel the thread and check whether it is twisted 2- or 3-

ply. The label no. 120 on the thread reel of a core thread corresponds e.g. to the thread size Nm 80/2 (see table values in brackets).

In case of monofilament threads you can use needle threads and hook threads of the same thickness. The best results are achieved with soft and elastic threads (software) of the thread thickness 130 Denier.

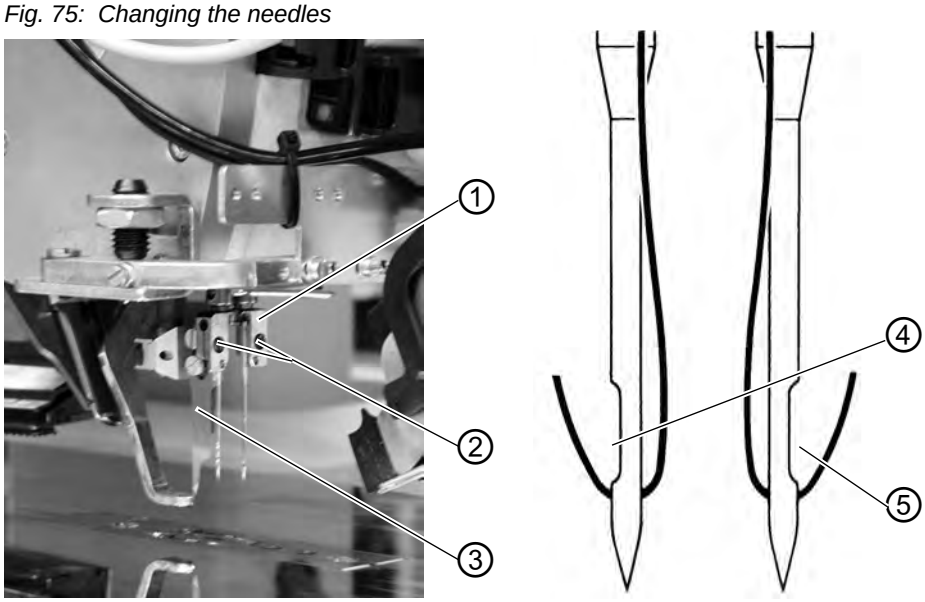
Recommended thread sizes:

Needle size Nm	Core thread		Core thread	
	Needle thread Polyester	Hook thread Polyester-spun Label no.	Needle thread Polyester continued Label No.	Hook thread Cotton-spun Label No.
90	120 (Nm 80/2)	120 (Nm 80/2)	120 (Nm 80/2)	120 (Nm 80/2)
100	100 (Nm 65/2)	100 (Nm 65/2)	100 (Nm 65/2)	100 (Nm 65/2)
110	75 (Nm 50/2)	75 (Nm 50/2)	75 (Nm 50/2)	75 (Nm 50/2)

Needle size Nm	Polyester fibre thread (3cycl.-spun)		Cotton thread	
	Needle thread	Looper thread	Needle thread	Looper thread
90	Nm 80/3-120/3	Nm 80/3-120/3	Ne 50/3-70/3	Ne 50/3-70/3
100	Nm 70/3-100/3	Nm 70/3-100/3	Ne 40/3-60/3	Ne 40/3-60/3
110	Nm 50/3-80/3	Nm 50/3-80/3	Ne 40/4-60/4	Ne 40/4-60/4

Changing the needles

Fig. 75: Changing the needles



(1) - Needle holder
(2) - Screw
(3) - Center knife

(4) - Needle scarf left needle
(5) - Needle scarf right needle

WARNING

Risk of injuries from cuts!

Turn off the main switch.

Change the needles only with the main switch switched off.

Never reach into the area of the center knife (3) when changing the needles.

- Swing the folding station aside (📖 chapter 5.1). The needles are freely accessible.
- Loosen screw (2) and remove the needle from the needle holder (1).
- Push the new needle into the drill-hole of the needle holder 1 as far as it will go.
  ATTENTION!
  Seen from the operator's side the scarf (4) of the left needle must point to the left and the scarf (5) of the right needle must point to the right (see sketch).
- Tighten screw (2).

ATTENTION!

Material damage!

After changing to another needle size the needle protection on the hook has to be readjusted (see Service Instructions).

Note:

The 745-35 is delivered as a standard with needles of the size Nm 100.

6.5 Threading in the needle thread

WARNING

Caution: Danger of injury!

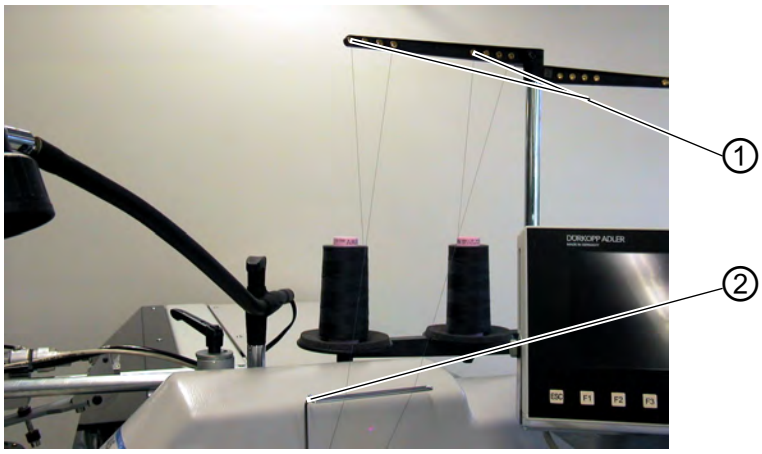
Turn off the main switch.

Thread the needle threads only with the sewing unit switched off.

The threading of the needle threads is done as shown in the illustrations below.

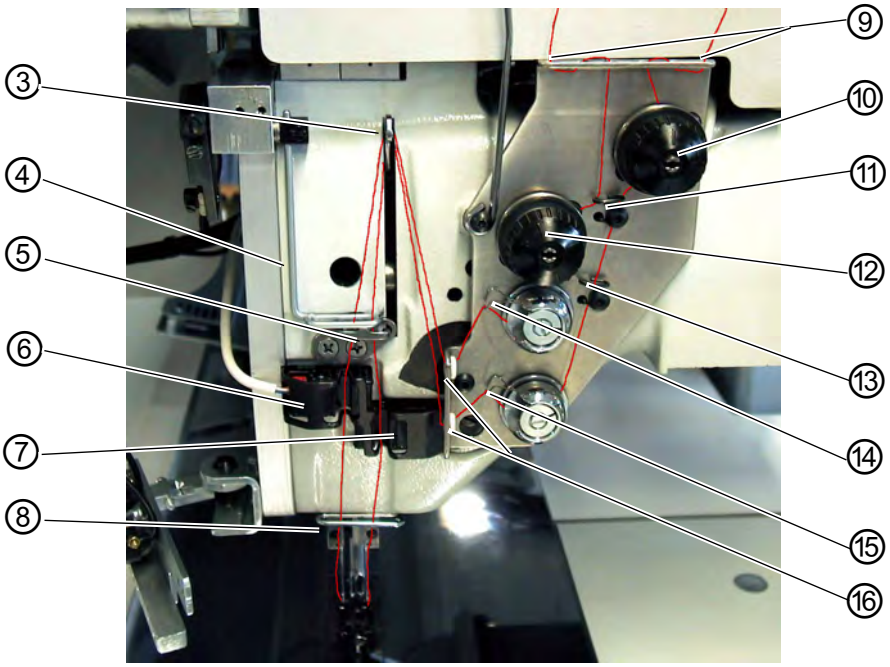
- Swing the folding station aside.

Fig. 76: Thread reel holder



(1) - Drill hole of the thread reel holder

Fig. 77: Threading in the needle thread



(3) - Thread lever
(4) - Thread puller
(5) - Guide
(6) - Needle thread monitor
(7) - Needle thread monitor
(8) - Guide
(9) - Drill-hole in the support plate
(10) - Needle thread tension
(11) - Guide
(12) - Needle thread tension
(13) - Guide
(14) - Thread tensioning spring
(15) - Thread tensioning spring

Left needle

- Put the thread reel on the thread reel holder.
- Thread the thread from the thread reel through the drill-hole (1) of the thread reel holder.
- Guide the thread through guide (2).
- Guide the thread through the drill-hole in the support plate (9).
- Guide the thread through guide (11).
- Guide the thread through the tension discs of the needle thread tension (12).
- Guide the thread through the thread controller spring (14).
- Guide the thread through the upper drill-hole in the support plate (16).
- Thread the thread through the upper drill-hole in the thread lever (3).
- Guide the thread downward through the thread puller (4).
- Thread the thread through guide (5) and the needle thread monitor (6).
- Thread the thread through guide (8), through the drill-hole in the needle holder and through the eye of the needle.

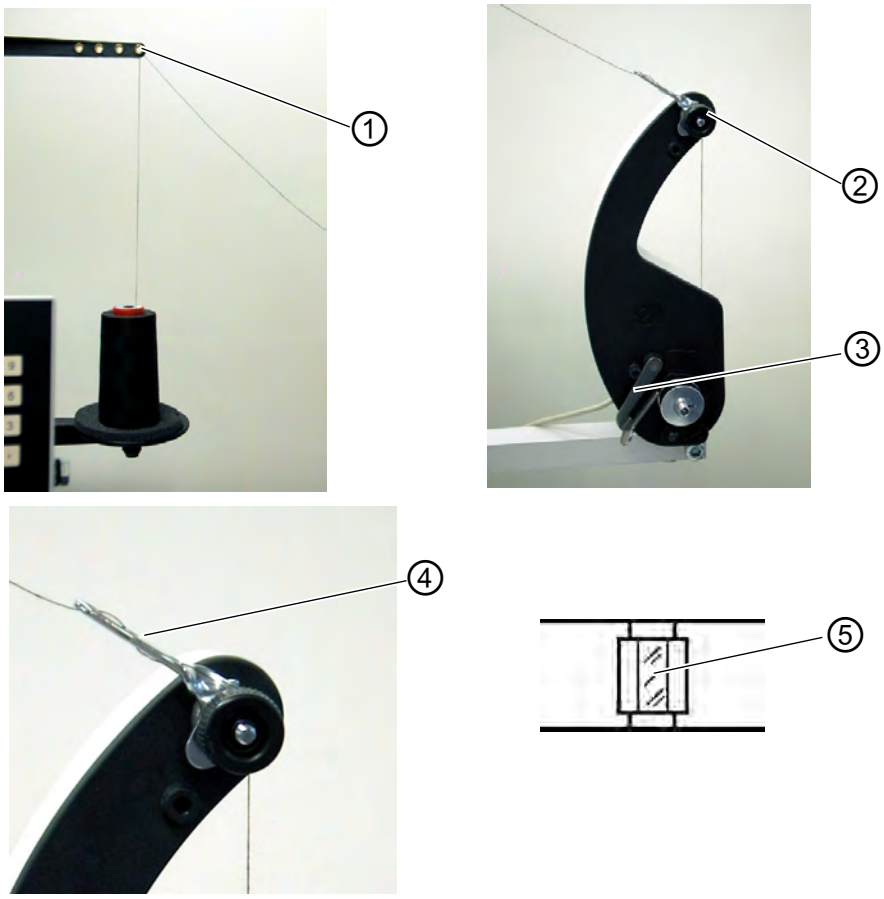
Right needle

- Put the thread reel on the thread reel holder.
- Thread the thread from the thread reel through the drill-hole (1) of the thread reel holder.
- Guide the thread through guide (2).
- Guide the thread through the drill-hole in the support plate (9).
- Guide the thread through the tension disc of the needle thread tension (10).
- Guide the thread through the guides (11) and (13).
- Guide the thread through the thread controller spring (15).
- Guide the thread through the lower drill-hole in the support plate (16).
- Thread the thread through the lower drill-hole in the thread lever (3).
- Thread the thread downward through the thread puller (4), through guide (5) and through the needle thread monitor (7).
- Thread the thread through guide (8), through the drill-hole in the needle holder and through the eye of the needle.
- Clamp the thread in the needle thread catcher and cut it off

6.6 Winding on the looper thread

The external winder makes it possible to wind the hook threads independent of the sewing operation.

Fig. 78: Winding on the looper thread



(1) - Drill-hole in the unwinder arm
(2) - Bobbin thread tension
(3) - Bobbin case latch
(4) - Guide
(5) - Reflecting surface

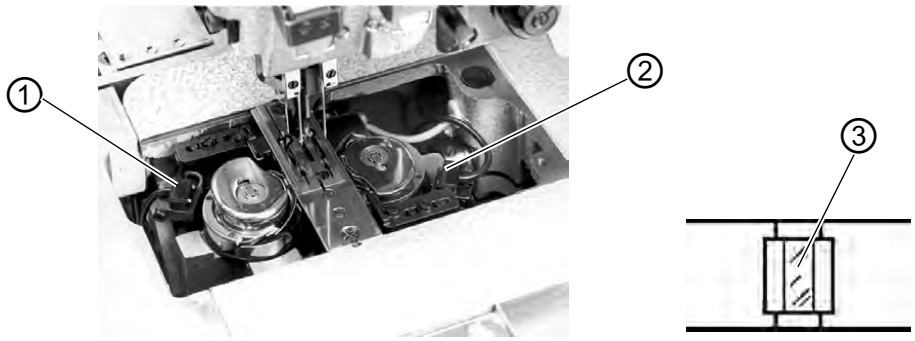
- Remove remaining thread from the bobbin hubs before winding.
- Put the thread reel on the thread reel holder.
- Thread the thread through the drill-hole (1) of the unwinding arm.
- Guide the thread through guide (4).
- Guide the thread through the bobbin thread tension (2).
- Prewind the thread to the right in the front and back reserve grooves of the bobbin hub. The full reserve grooves guarantee a secure winding, even with monofilament threads. With the thread reserves in the reserve grooves the pocket opening can safely be finished after the remaining thread monitor has indicated that the bobbin is empty. The reflecting surface (5) of the bobbin hub is to be kept clean.
- Press the bobbin retainer 3 against the bobbin hub. The winder

starts. After reaching the set bobbin filling level the winder shuts off automatically. For the setting of the bobbin filling level, 🕮 *Service Instructions*.

6.7 Remaining thread monitor

The remaining thread monitor monitors the left and right hook thread bobbin with the infrared reflected light barriers (1) and (2).

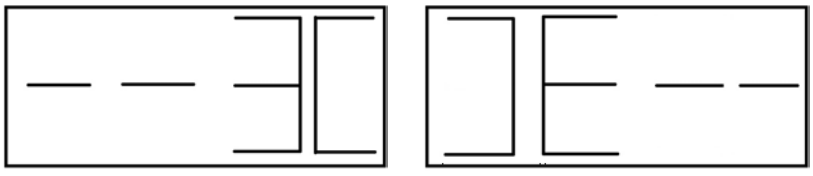
Fig. 79: Remaining thread monitor:



(1) - Light barrier 1
(2) - Light barrier 2
(3) - Reflecting surface

- When the bobbin is empty, the light beam transmitted by the light barrier (1) or (2) is reflected by the exposed reflecting surface (3) of the bobbin hub.
- With the remaining thread monitor switched on the message **Info 3220** appears in the display.
- Additionally a flashing symbol indicates the position of the empty bobbin:

Fig. 80: Message “Empty bobbin”



left bobbin empty

right bobbin empty

- The pocket opening is safely finished with the thread in the reserve groove of the bobbin hub. The transport carriage stops in its rear end position.

WARNING

Caution: Danger of injury!

Turn off the main switch.

Clean the lenses of the light barrier only with the sewing unit switched off.

- Turn off the main switch.
- Clean the lenses of the light barrier with a soft cloth after every bobbin change.
- Turn on the main switch.
- Start a new sewing cycle.

6.8 Changing the bobbins

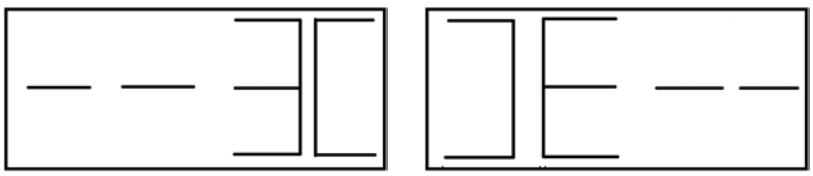
ATTENTION!

Material damage!

Switch the main switch off before changing the bobbin.

- After a certain number of seams the hook thread quantity on the bobbin is used up.
- With the remaining thread monitor switched on the message “Empty bobbin” appears in the display.

Fig. 81: Message “Empty bobbin”



left bobbin empty

right bobbin empty

- The pocket opening in progress is finished with the help of the thread reserve in the reserve grooves of the bobbin hub.
- After corner incision the workpiece is moved out or stacked.
- The transport carriages runs to its rear end position. It can be restarted after the bobbin change only.

Fig. 82: Removing the bobbin

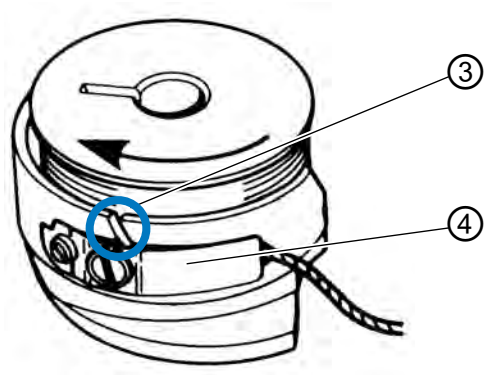
(1) - Upper part of bobbin case

Swing the folding station aside. Removing the empty bobbin

- Left needle. Switch the main switch off.
- Swing the folding station aside.
- Lift the fabric sliding sheet and swing it to the left.
- Lift the upper part of the bobbin case (1). The bobbin case flap (2) is lifted at the same time.
- Remove the upper part of the bobbin case together with the empty bobbin.
- Remove the empty bobbin from the upper part of the bobbin case.

Inserting a full bobbin

Fig. 83: Inserting a bobbin



(3) - Slot *(4) - Thread tension spring*

- Insert a full bobbin in the upper part of the bobbin case (1).
- Pull the thread through the slit (3) under the tension spring (4).

- Pull about 4 cm of thread out of the bobbin case. When pulling the thread out, the bobbin should turn in the direction indicated by the arrow (opposite the hook's rotation).
- Insert the upper part of the bobbin case (1) with the full bobbin in the lower part of the bobbin case.
- Close the bobbin case flap (2).

ATTENTION!

Material damage!

For a trouble-free function of the remaining thread monitor, clean the lenses of the light barriers after each bobbin change with a **soft** cloth.

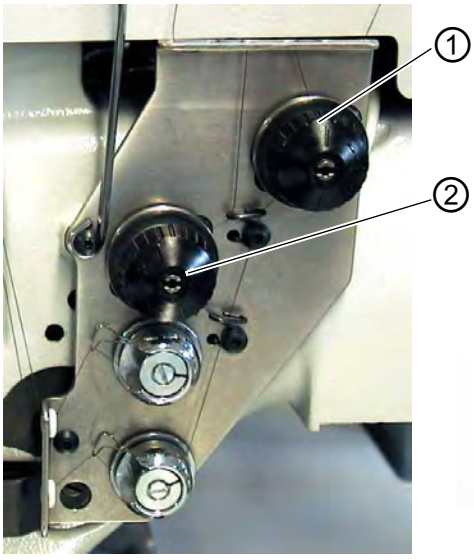
- Put the fabric sliding sheet back in place.
- Turn on the main switch.
- Start a new sewing cycle.

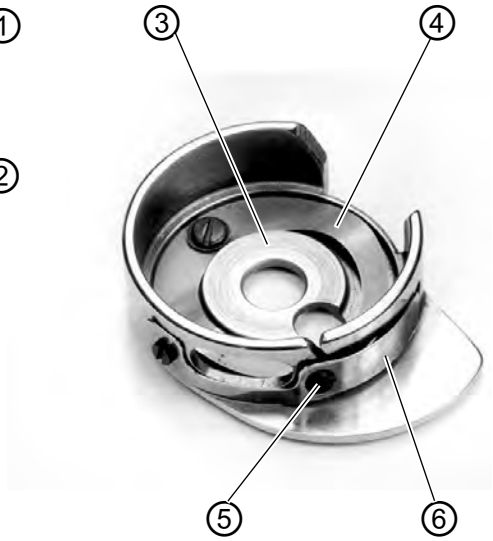
6.9 Thread tension

The cross-over point of the threads should lie in the center of the material.

Thick and hard material requires a tighter thread tension than thin and soft fabrics. Too high thread tensions can lead to undesired ruffling and thread breakage in case of thin material.

Fig. 84: Adjusting the thread tension





(1) - Knurled nut right needle thread
(2) - Knurled nut left needle thread
(3) - Surface
(4) - Brake spring
(5) - Adjusting screw
(6) - Leaf spring

Setting brake spring:

At a position stop of the machine head the brake spring avoids an over-travel of the hook thread bobbin.

- Set the brake spring (4) by adjusting its position. The brake power is set correctly when the brake spring (4) projects beyond the surface (3) by approx. 1 mm.
- When setting the tension spring (6) the brake power is to be taken into account.

Setting the tension spring:

- Start by setting the tension of the leaf spring (6) at the adjusting screw (5) to the minimum.
  Increasing the hook thread tension: Turn clockwise
  Reducing the hook thread tension: Turn counter-clockwise.
- With the bobbin inserted and the hook thread threaded through the throat plate, the pulling of the thread has to be smooth.

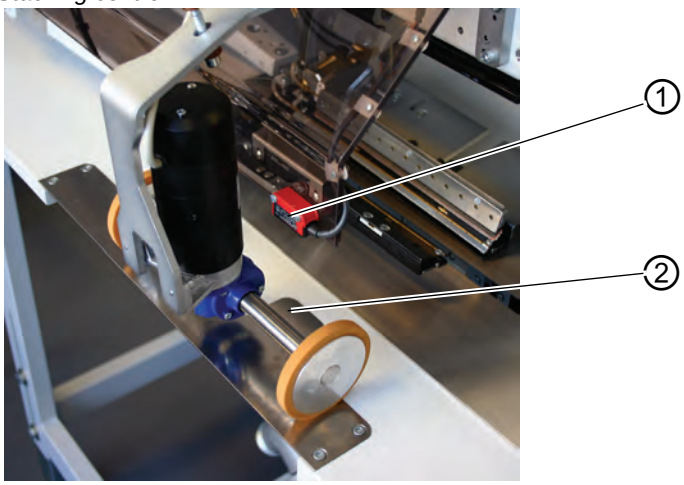
Setting the needle thread tension:

- Adjust the needle thread tension until a uniform stitch pattern is achieved.
- Set the tension of the needle threads at knurled nut (1) (right needle thread) and knurled nut (2) (left needle thread).Increasing the hook thread tension: Turn clockwise
  Reducing the hook thread tension: Turn counter-clockwise.

6.10 Stacking control

The reflected light barrier (1) monitors the stacking and blowing-out of the sewn workpiece. The transport carriage does not return before the workpiece has been correctly moved out.

Fig. 85: Stacking control



(1) - Reflected light barrier *(2) - Reflecting sheet*

- If the workpiece is not moved out correctly, the light beam between the reflected light barrier (1) and the reflecting sheet (2) remains interrupted. A restart is not possible.

WARNING

Caution: Danger of injury!

Do not reach into the runway of the transport carriage when removing the workpiece.

In sewing programs with automatic carriage return, the transport carriage moves to the front after clearance of the light beam.

Clean the lenses of the light barrier only with the sewing unit switched off.

- Remove the workpiece out of the light beam zone. A new sewing cycle can be started.

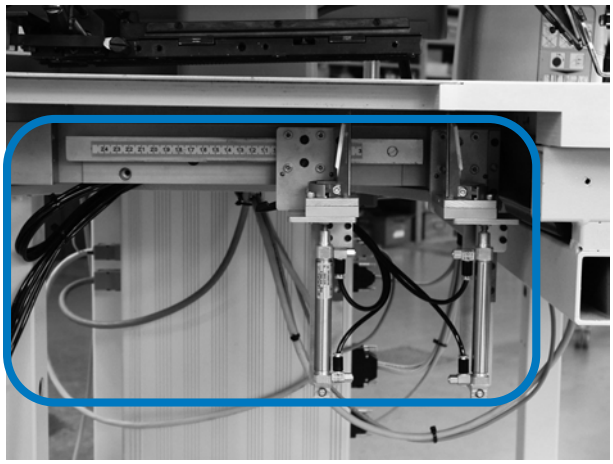
ATTENTION!

For a trouble-free function of the stacking control clean the lens of the reflected light barrier once a day with a **soft** cloth.

6.11 Corner knife station rectangular pocket corners

The 745-35 is equipped with a corner knife station.

Fig. 86: Corner knife station 745_35 S



6.11.1 Swinging the corner knife station out / in

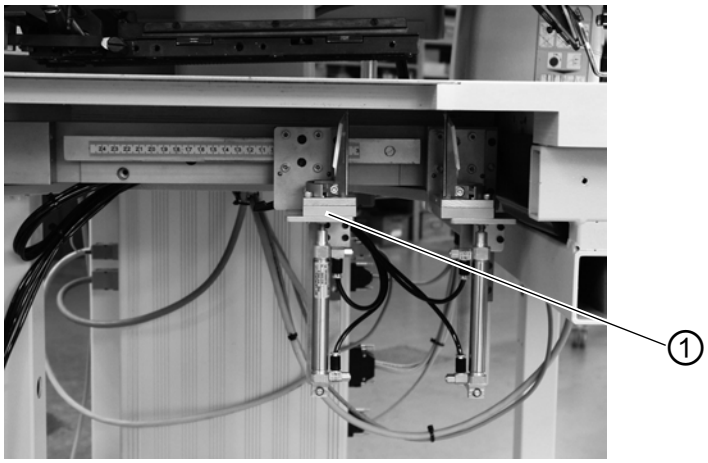
WARNING

Caution: Danger of injury!

Turn off the main switch.

Swing out the corner knife station only with the sewing unit switched off.

Fig. 87: Swinging the corner knife station 745-35 S



(1) - Corner knife station

Swinging the corner knife station out

- Swing out the corner knife station (1) to the left. The knives are accessible for setting and service operations.

Swinging the corner knife station in

- Swing the corner knife station (1) back under the sewing unit and make sure it locks.

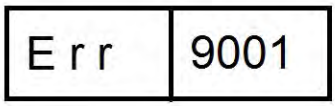
ATTENTION!

Material damage!

The corner knife station must audibly lock when being pushed in.

If the corner knife station is swung out with the sewing unit switched on, the following message appears on the display:

Fig. 88: Message “Corner knife station”



6.11.2 Setting the corner knife

WARNING

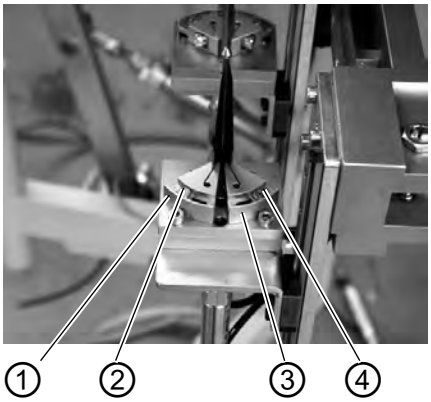
Caution: Danger of injury!

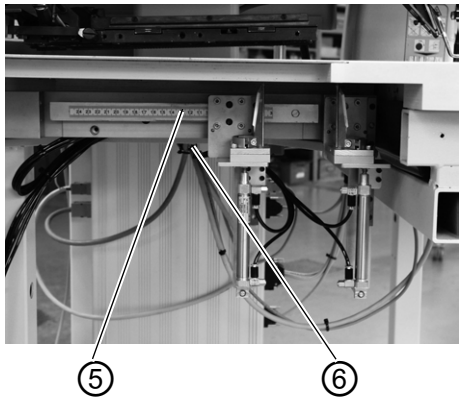
Turn off the main switch.

Set the corner knife station only with the sewing unit switched off.

Swinging out the corner knife station

Fig. 89: Setting the corner knife





(1) - Knife carrier
(2) - Screw
(3) - Knife carrier
(4) - Screw
(5) - Scale
(6) - Clamping lever

Setting the angle of the corner knife station

The angle of the corner knife is set by twisting the knife carriers (1) and (3).

- Loosen the screws (2) and (4).
- Twist the knife carriers (1) and (3) evenly.
- Tighten screws (2) and (4).
- Set the angle on the other knife set accordingly.

Height of the corner knives

The height of the corner knives cannot be adjusted. The knives always completely cut through.

Swinging the corner knife station in.

Position of the adjustable knife carrier

The position of the adjustable knife carrier corresponds to the seam length L1.

- Loosen the clamping lever (6).

- Set the seam length L1 on scale (5).
- Retighten clamping lever (6) again.

6.12 Reference position, Starting the sewing cycle, Quick stop

Reference position

The reference position is necessary in order to get a defined initial position.

- Turn on the main switch. The control unit is initialized.
- On the display appears for a short moment **bF4**(program version)**745**(program number).
- The control unit checks whether the transport carriage is in its rear end position.
  If this is not the case, the display shows the message “Reference run”.

Fig. 90: Message display

- Step back on the pedal.
  Reference run is started.
  The transport carriage stops in its rear end position.
- The display switches to the most recent sewing program (f. e. L1 - 180 mm)

Starting the sewing cycle

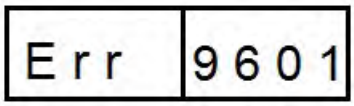
- Step forward on the pedal.
  By actuating the left pedal several times, the various steps of the positioning procedure are triggered successively.
- To correct the positioning:
  Step back on the pedal.
  The last step of the positioning process is undone.
  A new positioning can be made.
- Step forward on the pedal.
  The sewing procedure is started.

Quick stop

The safety system of the 745-35 offers two possibilities for the immediate shutdown of the unit in case of faulty operation, needle or thread breakage etc.:

- Step back on the pedal.
  The current step of the positioning process or the sewing cycle is aborted immediately.
  The following message appears:

Fig. 91: Message display

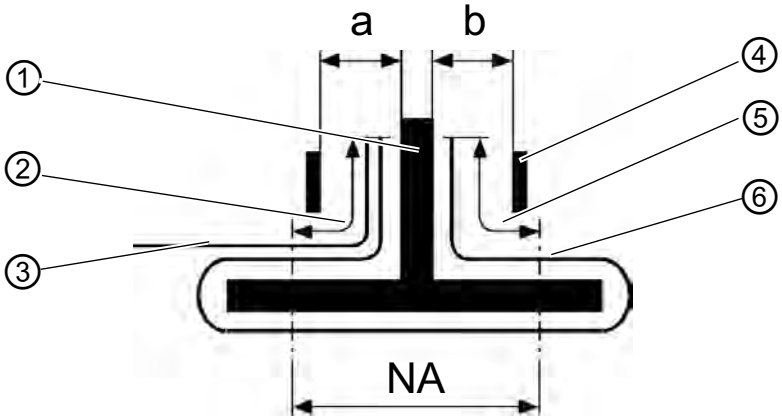


- Step back once more on the pedal. The carriage runs out of the feeding area.
- Press the key “RST” on the control panel. The current sewing cycle is aborted.

6.13 Flap and Piping Projection

To ensure an unimpeded passage of the workpieces at the folder or pick-up folder station, the maximum projections of piping, flap and material thickness must not be exceeded. Check the maximum admissible width of the piping strips for the different sewing equipment (E-no.) in the Equipment Sheets of the 745-35.

Fig. 92: Flap and Piping Projection



(1) - Folder
(2) - Flap projection max. 20 mm
(3) - Flap
(4) - Guide plate at the folder
(5) - Piping projection max. 20 mm /40 mm
(6) - Piping strip

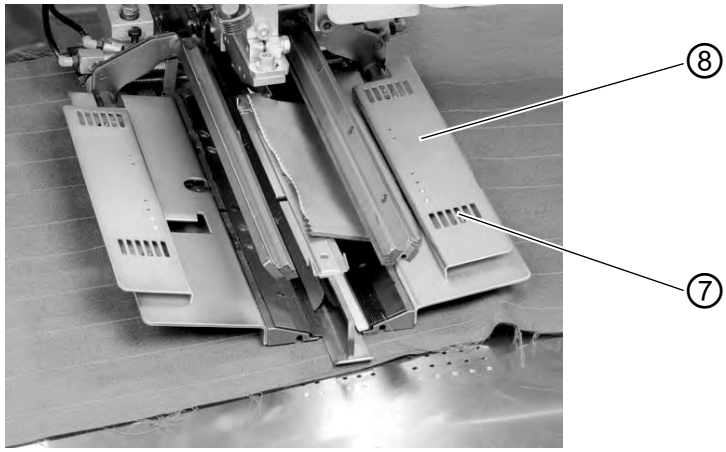
NA: Seam distance
***a, b**: Material passage at the folder*

Setting the sew-in depth of the flap (only manual feed)

The stop (8) determines the sew-in depth and thus the flap projection.

- Pull the stop (8) to the front (towards the operator) and lift it. Place stop (8) in another pair of slotted holes.
- For fine adjustment adjust the hexagonal bolts (7) underneath the stop (8).

Fig. 93: Sew-in depth of the flap



(7) - Hexagonal bolt *(8) - Stop*

6.14 Piping strip length

The piping strip length must be dimensioned in a way that it projects approx. 20 mm beyond the seam beginning and seam end. This piping strip length is calculated as follows:

Piping strip length = sewing length + 2 x 20 mm

6.15 Working methods

A short explanation of the possible working methods of the machine will follow:

Working method	Explanation
A	Piped pockets, manual positioning of the piping strips, flaps and other add-on parts

The individual working methods are described on the following pages. The description is divided into the following items:

Loading positions

This item indicates which loading positions are used for the various workpieces (e.g. left and right pieces).

Aligning the positioning aids

This section describes the setting and alignment of the positioning aids (e.g. positioning marks, marking lamps, stops etc.).

Positioning and starting the sewing cycle

Under this item the individual positioning steps are listed with common positioning examples.

ATTENTION!

Material damage!

The steps of the positioning process are dependent on the equipment of the respective sewing unit. Thus, the positioning steps described in the examples only apply for sewing units with identical equipment.

WARNING

Caution: Danger of injury!

Do not reach under the downholder, the feeding clamp and the folder during the positioning process.

6.15.1 Working method A (Production of trousers)

Possible processing variants

- Front trousers pockets with underlaid pocket bag.
- Hind trousers pockets with or without flap, with underlaid pocket bag.
- Hind trousers pockets with or without flap, with automatically fed reinforcement strip.

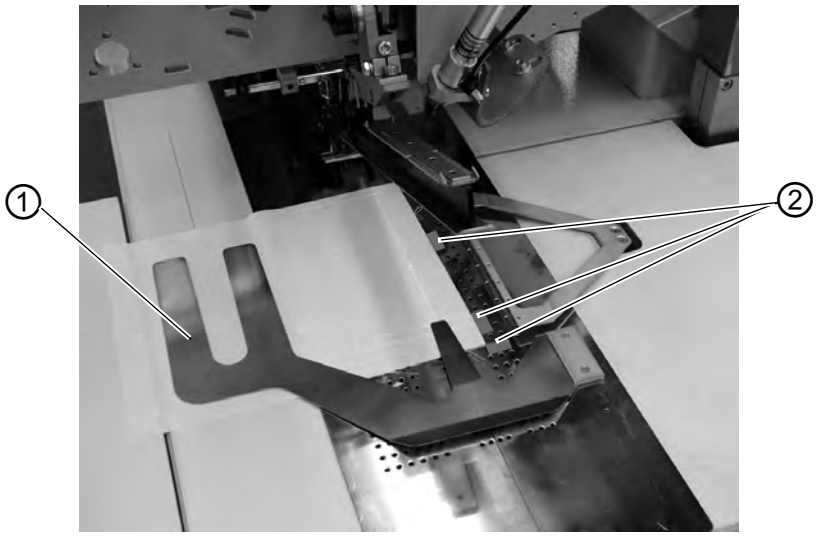
Positioning method

Example: Hind trousers without flap, with underlaid pocket bag

1st step:

- Select the pocket program at the control panel.
- Push the pocket bag under the pocket bag clamp (1) and position it at the markings (2). As markings you can use e.g. adhesive tape attached to the fabric sliding plate.

Fig. 94: 1rd step method A

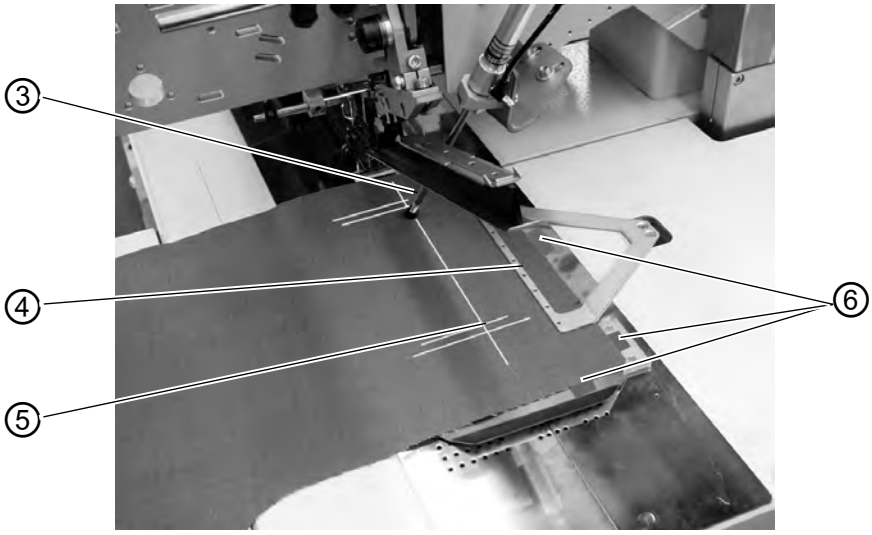


(1) - Pocket bag clamp *(2) - Markings*

2nd step:

- Position the hind trousers at the “Rear positioning point” (5) and the marking (6).
- Touch the pedal, respectively the left pedal. The hind trousers is clamped in its position by the fabric downholder (3) and the waist-band clamp (4).
- Smooth out the clamped hind trousers in the dart area.
- If additionally equipped with vacuum: Slightly step on the pedal, respectively the left pedal.The vacuum is switched on. The vacuum is switched on.

Fig. 95: 2rd step method A



(3) - Fabric downholder
(4) - Waistband clamp
(5) - Rear positioning point
(6) - Markings

3nd step:

- Touch the pedal, respectively the left pedal. The feeding clamps run to the front and lower onto the workpiece.
- Position the piping strip (8) on the feeding clamps flush with the front edges (9). A detailed description of the alignment of the different types of piping on the feeding clamp follows. See “Positioning the piping strip”.
- Touch the pedal, respectively the left pedal. The folder (7) lowers.
- Slightly step on the pedal, respectively the left pedal. The sewing cycle starts.

Fig. 96: 3rd step method A

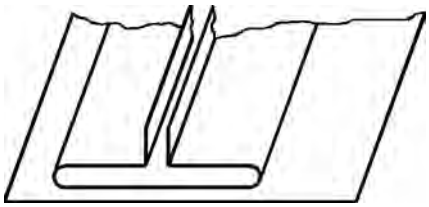
(7) - Folder
(8) - Piping strip
(9) - Front edges

Positioning the piping strip

Double piping:

- Position the piping strip centered on the feeding clamps and flush with the front edges.

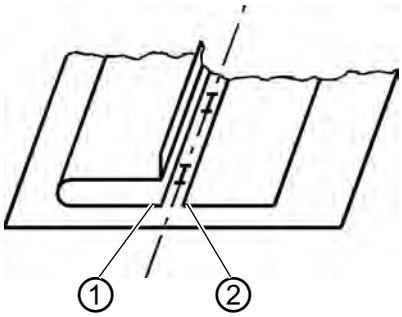
Fig. 97: Double piping



Single piping (left) with separately positioned facing (right):

- Position the piped pocket on the left feeding clamp flush with the cutting line.
- Position the facing on the right feeding clamp. For this positioning method the optional equipment “Flap clamp, right” is required.
- The edges (1) and (2) must be sufficiently seized by the needle, but must not be cut by the center knife.

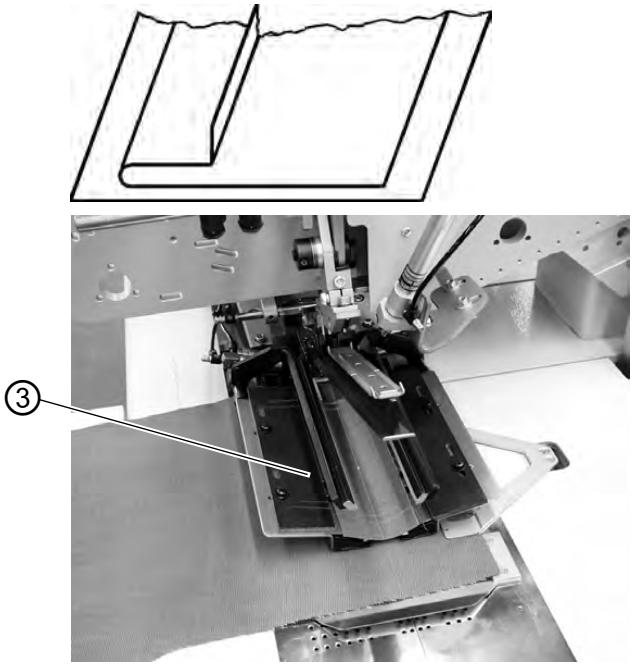
Fig. 98: Simple piping



Single piping left with grown-on facing

Position the piping strip at stop (3) on the left folding plate.

Fig. 99: Simple piping left



ATTENTION!

Material damage!

With grown-on facing the right folding plate must not close. Pull off the hose coupling at the right feeding clamp.

Sewing with flap

For the simultaneous sewing-in of flaps or other additional parts the following optional equipment is required according to the field of application:

Production of trousers: Flap clamp, right
Production of jackets: Flap clamp, left

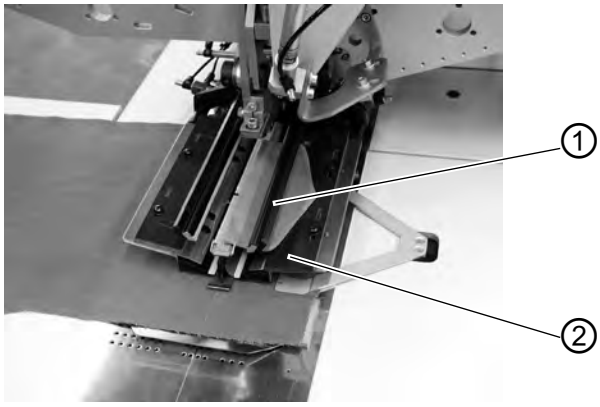
Selecting the closing order of the flap clamps

Application	Take-up	Closing order of the flap clamps
Production of trousers	right	Right flap clamp closes first
Production of jackets	left	Left flap clamp closes first

Sewing without light barrier

Shaped guide for flap

Fig. 100: Flap



(1) - Flap clamp *(2) - Unmachined part*

The unmachined part (2) is delivered with the flap clamp (1). It has to be machined as a shaped guide to fit the used flap.

ATTENTION!

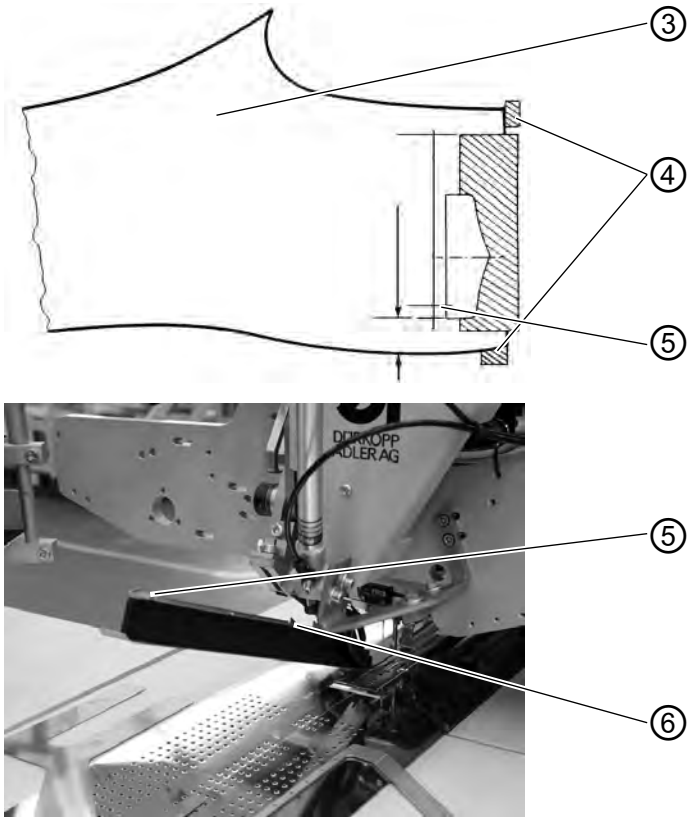
Material damage!

The flap length has to correspond to the desired length of the pocket opening.

Sewing with the flap on the right (Production of trousers)

- When manufacturing trousers, always position the flap at the “rear positioning point” (light spot (5)). The “rear positioning point” serves as fixed point also for other pocket lengths (further flap lengths).
- Attach the positioning mark (4) for the hind trousers on the fabric sliding sheet correspondingly.
- The sketch shows the positioning of a right hind trousers part (3) with flap.
- Position the left hind trousers parts mirror-inverted. The position of the flap remains the same.

Fig. 101: Production of trousers



(3) - Right hind trousers part
(4) - Positioning marks
(5) - Light spot
(6) - Positioning marks

Sewing with light barrier

When sewing in flaps the seam beginning and seam end are recognized by the light barrier.

Positioning the flap

The positioning marks (6) on the folder limit the sewing area for the attaching of flaps.

- Always position the flaps within the marked area.

ATTENTION!

If the flap is positioned outside of the marked area, the display of the control unit indicates the following error message.

Err 9721 or Err 9722

Correction of seam beginning and seam end

The correction of seam beginning (NA) and seam end (NE) when sewing with light barrier occurs in the pocket correction program, further explanations: 🕮 Programming Instructions.

6.15.2 Working method A (Production of jackets)

Piped pockets, manual positioning of piping strip, flaps and other add-on parts

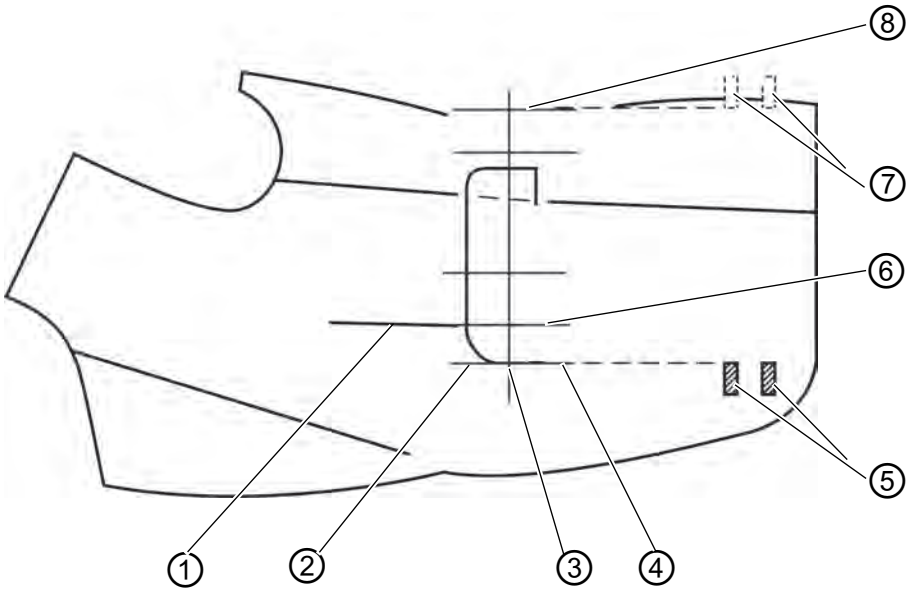
Loading positions for left or right jacket front parts

- Position the left jacket front parts at the rear positioning point (light spot (4)). Position the right jacket front parts at the front positioning point (light spot (8)).

Position the piping strip on the left feeding clamp flush with the cutting line. It is useful to generate a pocket program for left jacket front parts (rear positioning point selected) and a pocket program for right jacket front parts (front positioning point selected).Thus, you only have to alter the pocket program in the main screen when changing between left and right jacket front parts.

Aligning the positioning aids

Fig. 102: Positioning aids

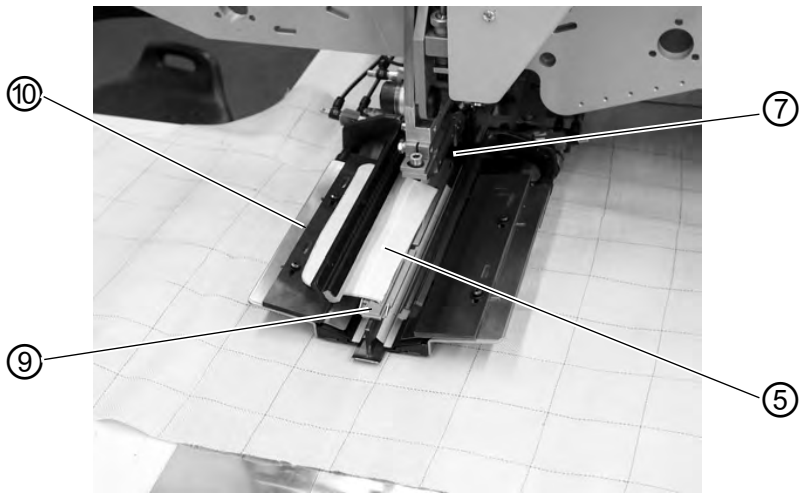


(1) - Breast dart
(2) - Flap edge
(3) - Light spot
(4) - Light spot
(5) - Stop
(6) - Light spot
(7) - Stop
(8) - Light spot

Laser markings:

- When positioning is effectuated at light spot (6), the distance between breast dart (1) and flap edge (2) will always be the same.

Fig. 103: Positioning aids



(5) - Stop
(7) - Stop
(9) - Flap
(10) - Stop

Stops for the manual flap feed:

- Adjust the stops (7) and (5) on the folder as to the light spots (8) and (3).

ATTENTION!

If the flap (9) is positioned outside the dotted lines (of the sewing area), the function sequence will be interrupted. The display shows the following message.

Err 9721 or Err 9722

Stop (10) (sew-in depth of the flap):

- Set the sew-in depth of flap (9) by inserting the stop (10) in the corresponding pair of slotted holes.

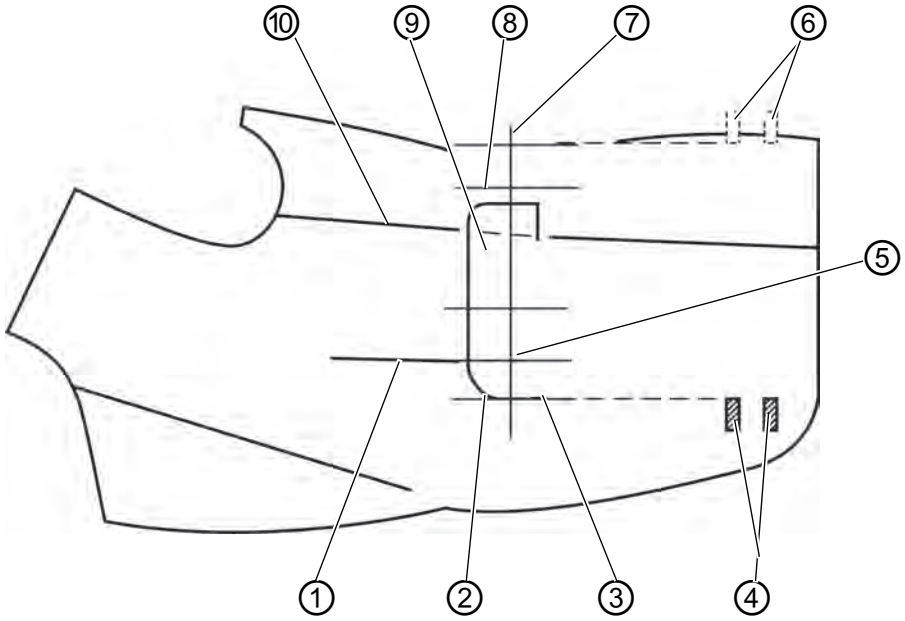
WARNING

Caution: Danger of injury!

Do not reach into the working area of the positioning device when triggering the individual steps of the positioning process.

Positioning and starting the sewing cycle

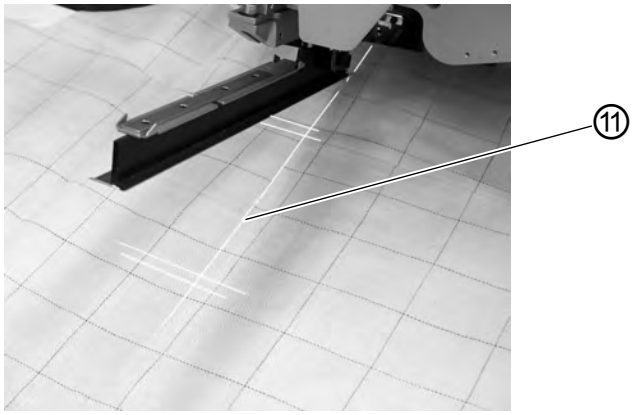
Fig. 104: Positioning aids



(1) - Breast dart
(2) - Flap edge
(3) - Light spot
(4) - Stop
(5) - Light spot
(6) - Stop
(7) - Light spot
(8) - Light spot
(9) - Flap
(10) - Side seam

1. Position the jacket front part on the fabric sliding sheet.

Fig. 105: Positioning aid



(11) - Pocket incision

a) Plain goods:

Left jacket front parts:

Position the jacket front part with breast dart (1) at the light spot (5).

Right jacket front parts:

Position the jacket front part with breast dart (1) at the light spot (8).

b) Patterned goods:

Mark the flap edge (2) on the jacket according to the pattern.

Left jacket front parts:

Position the jacket front part with the marking on light spot (3).

Right jacket front parts:

Position the jacket front part with the marking on light spot (7).

2. Align the pocket incision (11) at the vertical lines of the light spots (center knife incision).
   The pocket incision (11) is between the breast dart (1) and the side seam (10).

3. If additionally equipped with vacuum: Step forward on the pedal and release. The vacuum is switched on.

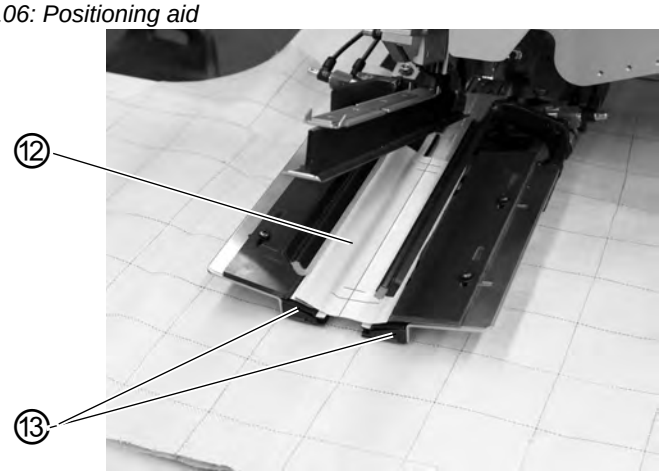
4. Step forward on the pedal. The transport carriage moves to the loading position. The feeding clamps lower onto the jacket front part.

For positioning corrections:

Step back on the pedal. The feeding clamps lift.

Step back on the left pedal once again. The transport carriage runs back to the waiting position.

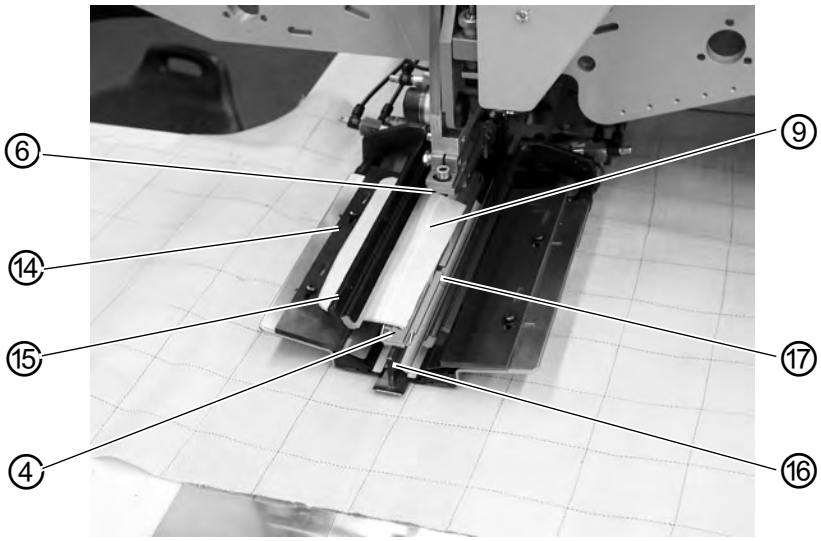
Fig. 106: Positioning aid



(12) - Piping strip
(13) - Front edges

5. Position the piping strip (12) on the feeding clamps.
   Left jacket front parts:
   Position the piping strip (12) flush at the front edges (13).
   Right jacket front parts:
   Position the piping strip approx. 20 mm behind the light spot (7).

Fig. 107: Positioning



(4) - Stop
(6) - Stop
(9) - Flap
(14) - Stop
(15) - Flap clamp
(16) - Folder
(17) - Flap clamp

6. Step forward on the pedal. The folder (16) lowers.
7. Position the flaps on the left feeding clamp at the stop (14) and align it

in sewing direction.
Left jacket front parts:
Position the flap (9) at the rear stop (4) of the folder (16).
Right jacket front parts:
Position the flap (9) at the front stop (6) of the folder (16).

8. Step forward on the pedal. Flap clamp (15) closes.

9. Step forward on the pedal.Flap clamp (17) closes.The sewing cycle starts.

ATTENTION!

Material damage!

The steps 8 and 9 are dependent on the closing order of the flap clamps set in the pocket parameters: 🕮 Programming Instructions.

6.16 Functions and operation of the optional equipment

In this chapter the function and the operation of the most important optional equipment is described.

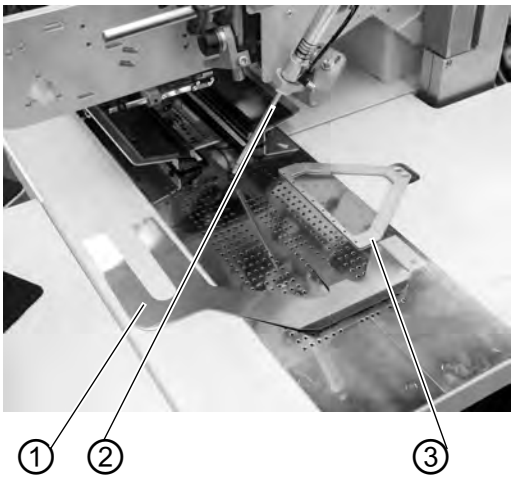
6.16.1 Downholder and Pocket bag clamp

With these equipment hind trousers and pocket bags are safely held when smoothing out the fullness caused by the dart.

The devices consist of the following components:

- Downholder (2)
- Pocket bag clamp (1)

Fig. 108: Holding devices



(1) - Pocket bag clamp
(2) - Downholder
(3) - Waistband clamp

WARNING

Caution: Danger of injury!

Do not reach under the downholder (2) during the positioning process.

Function

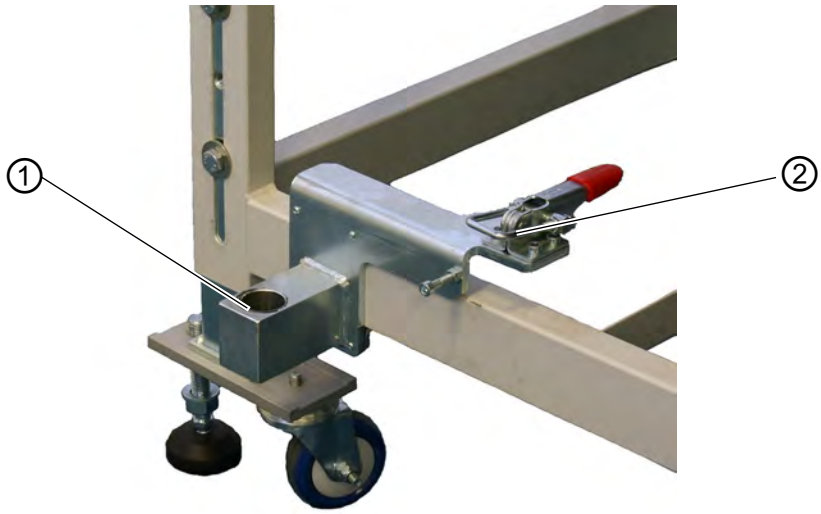
- Push the pocket bag under the pocket bag clamp (1) and align it.
- Align the hind trouser.
- Step forward on the left pedal.
  The downholder (2) lowers and locks the hind trouser in its position.
- Smooth out the clamped hind trousers laterally and to the front.

6.16.2 Stacker

At the 745-35 S the grip stacker can be deployed.

The stacker is inserted in the seat (1) shown below and locked in place (2).

Fig. 109: Stacker seat



(1) - Seat for stackers *(2) - Lock*

Grip stacker With the grip stacker the finished workpieces from the sewing unit are deposited on the rack.

Activate the stacker:

- Activate the grip stacker via the control panel in the menu “machine parameters”, 🕮 *Programming Instructions*. The parameter signals to the control unit that the sewing unit is equipped with a grip stacker.

Switching the stacker on

- Switch on the grip stacker in the menu “Pocket parameters”, 🕮 *Programming Instructions*.

Basic position

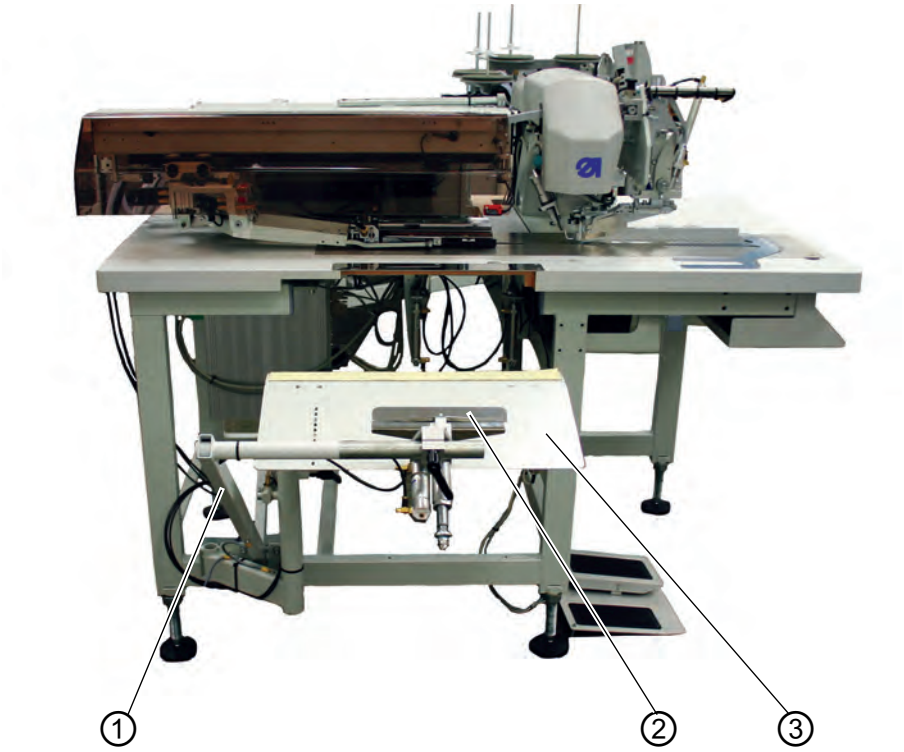
- Stacker shackle (1) at the front, stacker grip (2) open.
  The opened stacker grip (2) should be positioned 20-25 mm in front of the table top, so that the workpieces can be passed.
- With the stop signal the stacker grip (2) moves to the front and seizes the workpiece.
- The stacker shackle (1) swings to the back and pulls the workpiece off the table.
- Set the movement of the stacker shackle with the throttles so that it moves smoothly without jerk.

- The stacker grip (2) opens.
- The workpiece is deposited on top of the stacker board (3).

The stacker board height has to be set in a way that allows for a safe depositing of the workpiece.

- The stacker shackle (1) swings to the front.

Fig. 110: Grip stacker



(1) - Stacker shackle
(2) - Stacker grip
(3) - Stacker board

6.16.3 Blow-out device

The blow-out device (1) is used in conjunction with the bundle clamp. The blower pipe conveys the workpiece out of the sewing area.

Fig. 111: Blow-out device

(1) - Blow-out device

Switching the blow-out device on

- Switch on the blow-out device in the menu item “Machine parameters”, 🕮 *Programming Instructions*.

Note:

The blower pipe continues blowing until the light barrier at the stapler control is free.

6.16.4 Bundle clamp

The bundle clamp including the positioning table are suitable for the production of trousers. The bundle are deposited on the table and stuck in the bundle clamp. After sewing they are removed with the smoother or the blow-out device and descend while being held by the bundle clamp.

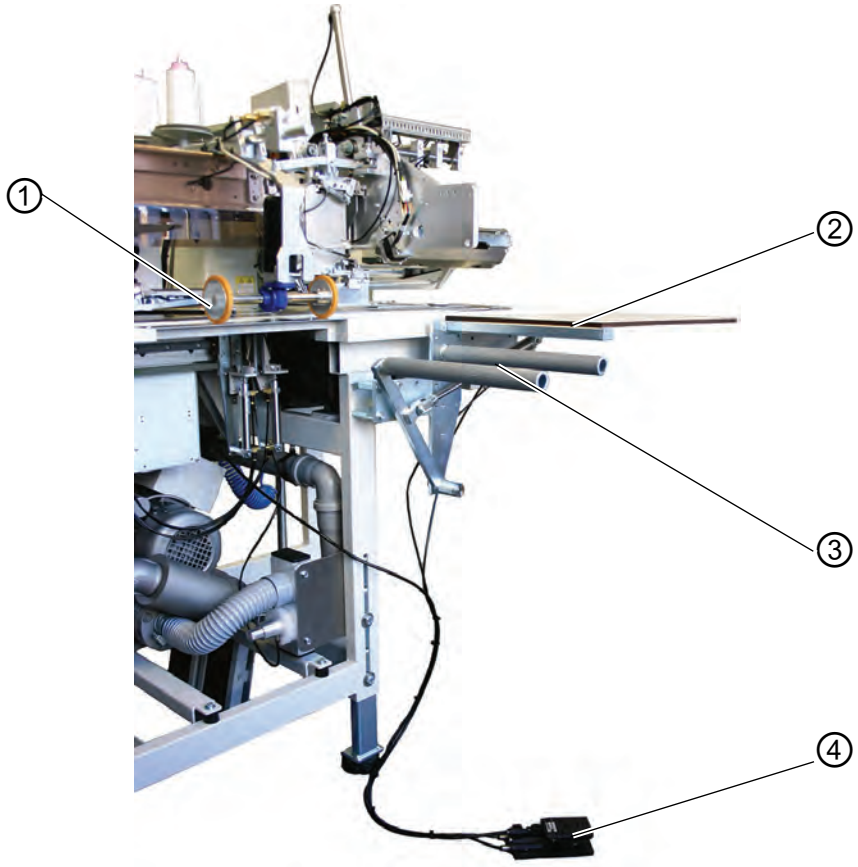
In order to optimize the bundle array, a smoother device (produced on customer demand) can be deployed.

WARNING

Caution: Danger of injury!

Risk of suffering bruising between the arms of the bundle clamps.

Fig. 112: Bundle clamp



(1) - Transport rollers
(2) - Table extension
(3) - Bundle clamp
(4) - Foot switch

Function and operation:

- Step the foot switch (4) down and hold it down.The bundle clamp (3) opens.
- Insert the hind trousers parts into the bundle clamp (3).
- Release the foot switch.
  The bundle clamp (3) closes.
- Deposit the clamped hind trousers parts on the table extension (2).
- With the lifting of the feeding clamps after the sewing and cutting sequence, the transport rollers (1) lower.
- The transport rollers (1) convey the hind trousers part out of the sewing unit.
  The hind trousers part will then dangle on the bundle clamp (3).

6.17 Maintenance

WARNING

Caution: Danger of injury!

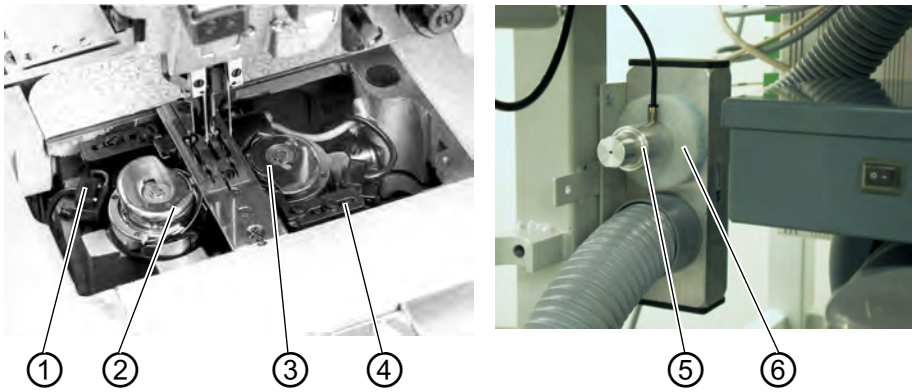
Turn off the main switch.
The maintenance of the sewing machine must only be done when the machine is switched off.

6.17.1 Cleaning

A clean sewing unit protects from malfunctions!

Clean and check daily:

Fig. 113: Cleaning



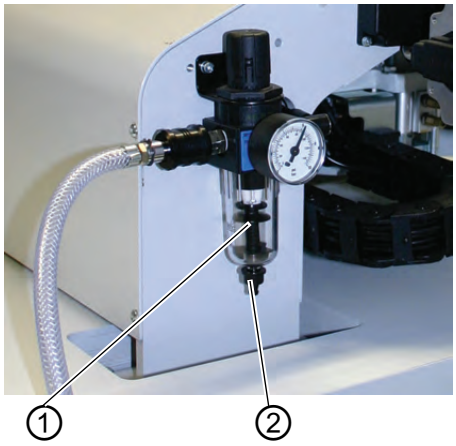
(1) - Light barrier
(2) - Hook
(3) - Hook
(4) - Light barrier
(5) - Vacuum valve
(6) - Filter ring

- Clean the area around the hooks (2) and (3) with the compressed air gun.
- Clean the lenses of the light barriers (1) and (4) of the remaining thread monitor with a soft cloth each time the bobbin is changed.
- Cleaning of the filter ring (6) at the vacuum valve (5):
  Blow out with a compressed air gun.

The filter ring can be ordered as spare part.

Clean and check daily:

Fig. 114: Cleaning



(1) - Water separator *(2) - Drain screw*

- Check the water level in the pressure regulator.
  The water level must not reach the filter element. After screwing in the drain screw (2) blow the water with pressure out of the water separator (1). The filter element separates dirt and condensed water. After a certain time of operation wash the dirty filter tray and the filter element with benzine and blow clean with the compressed air gun.

ATTENTION!

Material damage!

Do not use any solvents for washing out the filter tray and the filter element!
They destroy the filter tray.

6.17.2 Weekly lubrication

WARNING

Caution: Danger of injury!

Oil can cause skin rashes.

Avoid a longer skin contact with the oil.

After contact wash yourself thoroughly.

ATTENTION

Risk of environmental damage

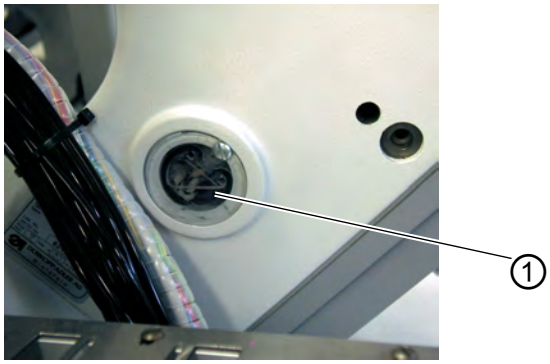
The handling and disposal of mineral oils is subject to legal regulations.
Deliver used oil to an authorized collecting station.
Protect your environment.
Do not spill any oil.

For filling up the oil reservoirs use nothing but DA 10 lubricating oil or an equivalent oil with the following specification:

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

Checking the oil level in the oil reservoir for the lubrication of the machine head

Fig. 115: Oil reservoir machine head

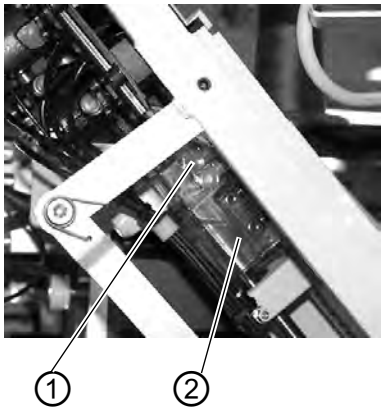


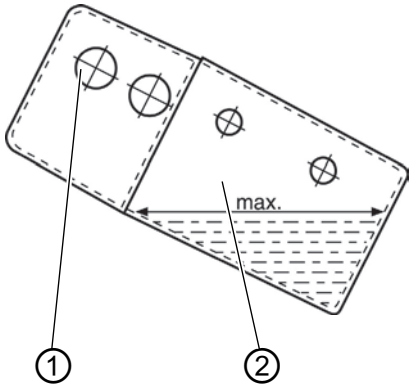
(1) - Oil reservoir

- Tilt the machine head up (📖 chapter *5.3*).
- The oil level in the oil reservoir (1) must not drop below the marking “Min”.
- If necessary, fill oil through the drill-hole in the inspection glass up to the marking “Max”.

Checking the oil level in the oil reservoir for the lubrication of the hook

Fig. 116: Oil reservoir for the hook lubrication





(1) - Nipple

(2) - Oil reservoir

- Tilt the machine head up (📖 chapter *5.3*).
- Fill up the oil reservoir (2) through the nipple (1) up to the marking “Max”.

7 Installation instructions

In the following, the steps are listed in chronological order. The structure of the chapter is oriented towards this sequence.

The manufacturer will not be held liable for damage resulting from improper use.

WARNING

Danger of injury due to insufficient technical knowledge

During the installation of the machine, insufficient technical knowledge can lead to serious injuries.

The machine should be installed ONLY by trained personnel.

DANGER

Risk of injury due to electric power!

Unprotected contact with electric power can cause dangerous injuries to life and limb.

All work on the electrical equipment may ONLY be carried out by qualified electricians or other appropriately trained persons.

ALWAYS disconnect the power plug before carrying out work at the electrical equipment.

7.1 Delivery scope

What items are supplied depends on your order. Prior to set-up, please check that all parts required are present.

- Standard equipment
- Optional equipment
- Small parts in the accessories

7.2 Installing the sewing unit

7.2.1 Transportation

.

CAUTION

Risk of injury due to incorrect transportation!

Do NOT lift the sewing unit at the table tops.

ALWAYS use an elevating platform truck or a forklift truck.

CAUTION

Risk of injury due to unstable footing!

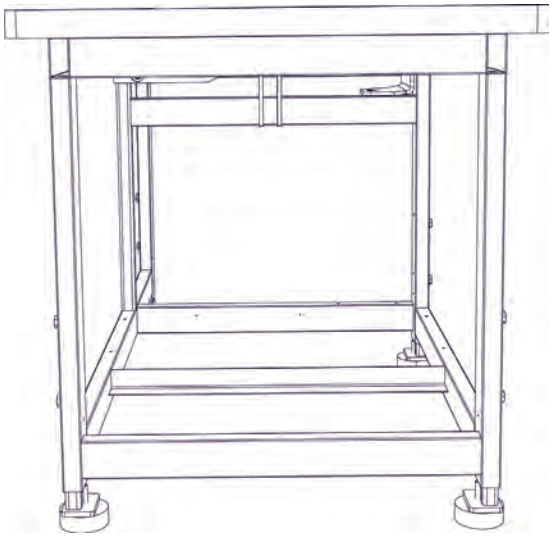
Before commissioning the sewing unit screw out the stand feet until a secure footing is achieved.

Lifting the sewing unit

- Only with an elevating platform truck or a forklift.

Stand without castors

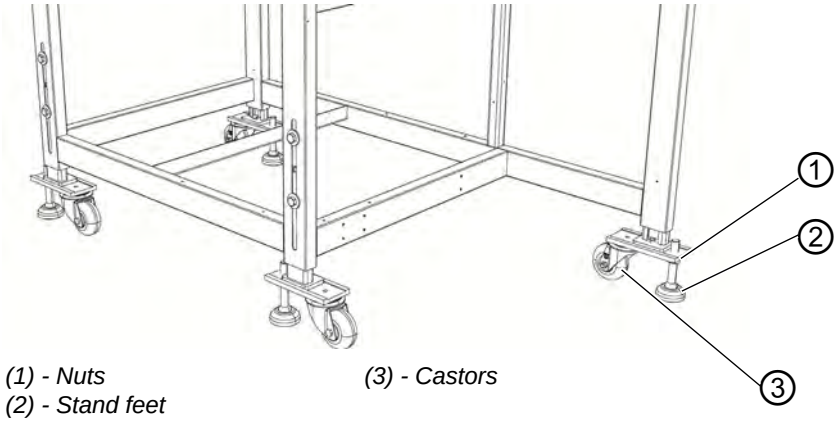
Fig. 117: Stand without castors



Stand with castors

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

Fig. 118: Stand with castors



(1) - Nuts
(2) - Stand feet
(3) - Castors

Rolling the sewing unit (optional)

- For transport purpose unfasten the nuts (1) of the stand feet (2) and screw them in.
- After transport secure the sewing unit by turning the stand feet (2) out until the castors lift off the ground (3).
- Tighten the nuts (1).

7.2.2 Removing the transport securing devices

Before installing the sewing unit, you have to remove all the securing devices.

All moving parts must be unlocked:

- Transport carriage
- Method plates
- Corner knife station
- Feeder
- Assembly group, for example stacker

If the sewing unit has to be transported to another place, you have to attach the securing devices again.

Also observe the notices in the supplement delivered with the machine when dismantling/mounting the securing devices.

7.2.3 Setting the working height

The working height is adjustable between 797 and 1138 mm (measured to the upper edge of the table plate).

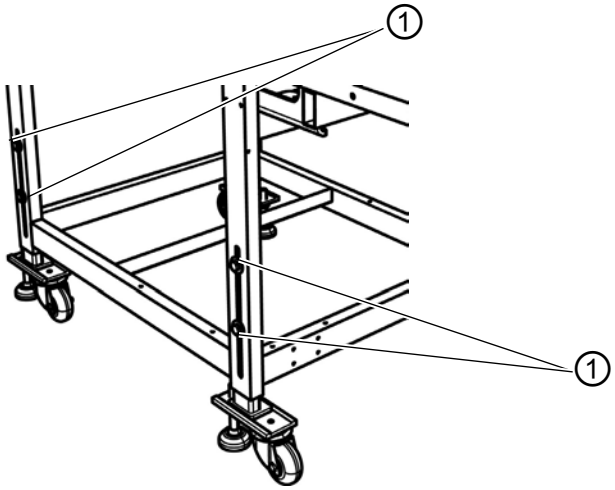
The sewing unit is set to the lowest working height of 797 mm at delivery.

CAUTION

Be careful when loosening the attachment screws.

The sewing unit may keel over when the tubular feet of the frame are pulled out.

Fig. 119: Setting the working height



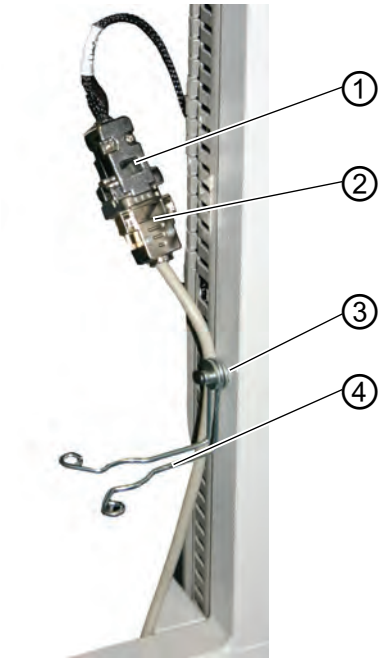
(1) - Screws

Set the height of the sewing unit by pulling equally the tubular feet of the frame.

- Loosen the four screws (1).
- Level out the table top at the desired working height.
  To avoid a jamming, pull out respectively push in the tubular feet evenly on both sides.
- Tighten the screws 1.

7.2.4 Connecting the foot pedal

Fig. 120: Connection foot pedal



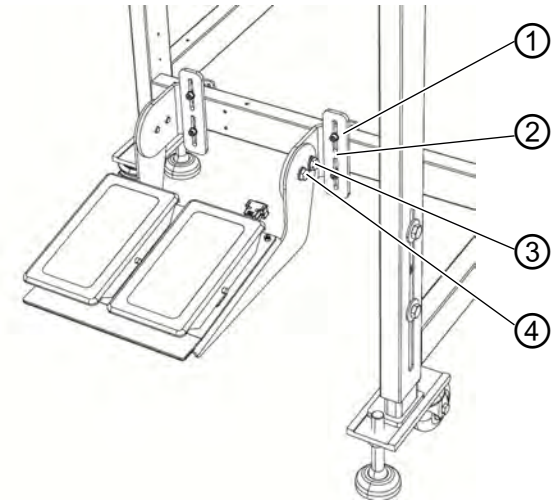
(1) - Socket
(2) - Plug
(3) - Grounding clip
(4) - Oil can holder

- Insert the plug (2) of the foot pedal into the socket (1) on the stand.
- Put the grounding clip (3) around the cable and fix the oil can holder (4).

7.2.5 Adjusting the foot pedals

For convenience the parts are only named on one side. But the same mapping is valid for the other side of the pedal.

Fig. 121: Adjusting the foot pedals with an adjustable stand



(1) - Screws
(2) - Slotted hole
(3) - Screws
(4) - Screws

The foot pedals can be adjusted in height, angle of inclination and lateral position.

Setting the height

- Loosen the four screws (1) and shift them in the slotted hole (2).
- Pay attention that the height of the pedal is even.
  Tighten the four screws (1).

Setting the angle of slope

- Loosen the two screws (3) and the two screws (4) and swivel the pedal.
- Tighten the two screws (3) and the two screws (4) with the pedal at the desired angle.

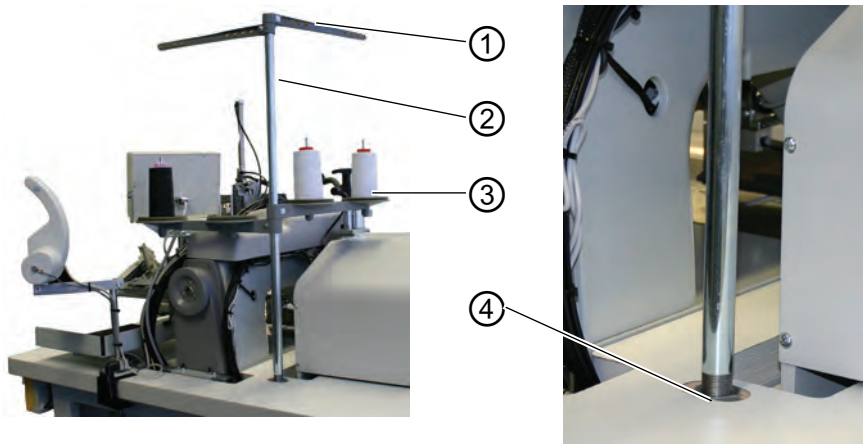
Setting the lateral position

- Loosen the four screws (1) and shift the pedal laterally on the stand brace.
- Tighten the four screws (1).

7.3 Attaching the machine parts removed for shipping

7.3.1 Thread reel holder

Fig. 122: Attaching the thread reel holder



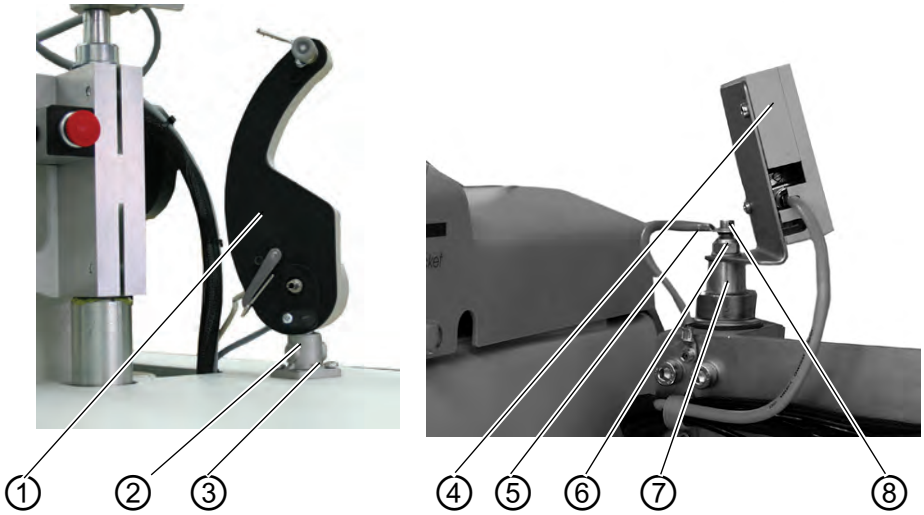
(1) - Unwinder arms
(2) - Thread reel holder
(3) - Reel plate
(4) - Drill-hole

- Insert the thread reel holder (2) in the drill-hole (4) of the table top and fasten it with a nut underneath the table top.
- Mount and align the reel plate (3) and the unwinding arms (1) as shown in the illustration.

7.3.2 Fastening the control panel and the bobbin winder

The holder for the control panel and the external winder is fixed on the right side of the machine head (seen from the operator's view)

Fig. 123: Fastening the control panel and winder



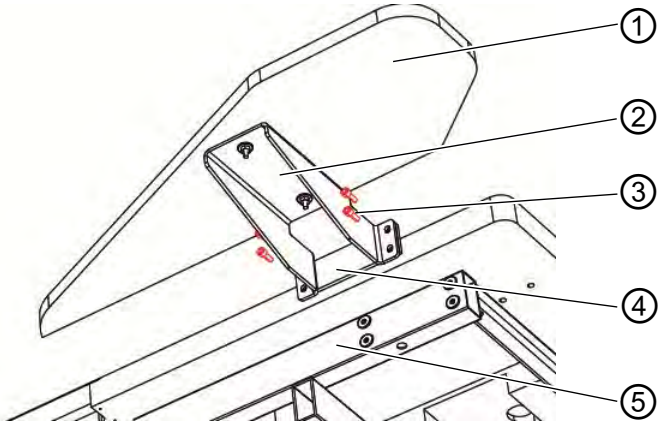
(1) - Winder
(2) - Screw
(3) - Pin
(4) - Control panel
(5) - Ground cable
(6) - Nut
(7) - Centering mandrel
(8) - Screw

- Fasten the control panel (4) onto the centering mandrel (7) for the folder station with nut (6).
- Fasten the ground cable (5) with screw (8).
- Fasten the winder (1) with screw (2) onto pin (3)

7.3.3 Table extensions (optional equipment)

Storage table small, slanted

Fig. 124: Table extension



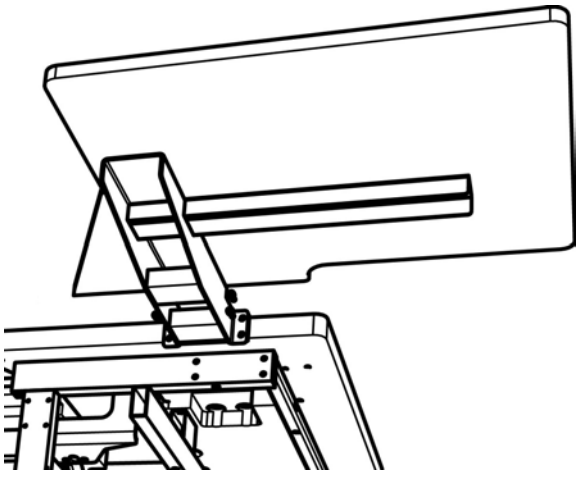
(1) - Table extension
(2) - Mounting bracket
(3) - Screws
(4) - Striker
(5) - Stand brace

- Insert the striker (4) into the stand brace (5).
- Slightly fasten the mounting bracket (2) using the four screws (3) with the striker (4).
- Align the table extension (1) to the height of the table top and tighten the four screws (3).

Storage table (large)

The fastening of the large storage table is identical to the fastening of the slanted table above.

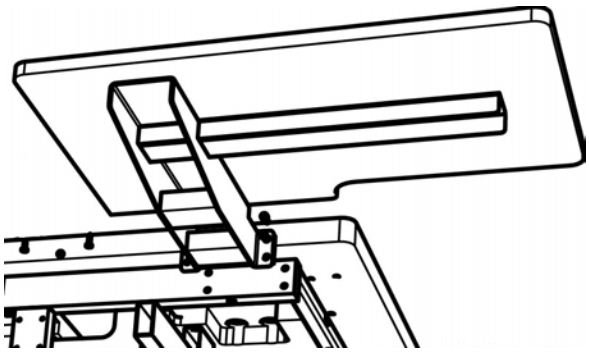
Fig. 125: Table extension to be used for stacking.



Storage table (small)

The fastening of the small storage table is identical to the fastening of the slanted table above.

Fig. 126: Attachment table extension



7.4 Electrical connection

DANGER

Risk of injury due to electric power!

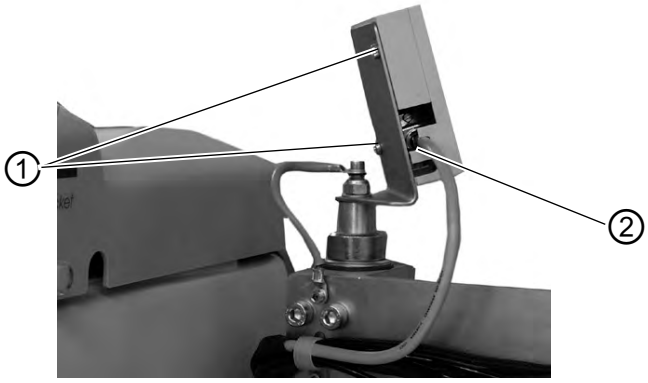
Unprotected contact with electric power can cause dangerous injuries to life and limb.

All work on the electrical equipment may ONLY be carried out by qualified electricians or other appropriately trained persons.

ALWAYS disconnect the power plug before carrying out work at the electrical equipment.

7.4.1 Connecting the control panel DACIII

Fig. 127: Connection control panel

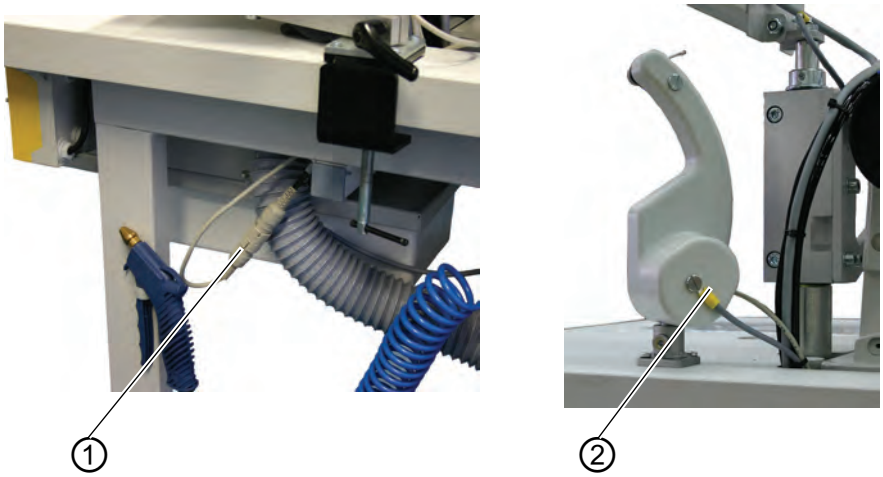


(1) - Screws *(2)- Plug X410*

- Carefully insert plug (2) into the rear panel of the control panel.
- Carefully tighten the screws of the plug (2).
- Fasten the control panel with the screws (1) onto the holder.

7.4.2 Connecting a separate winder

Fig. 128: Connection separate winder



(1) - Plug X412

(2) - Equipotential bonding

- Insert the plug of the bobbin winder into the socket (1) underneath the table top and secure with a cap nut.
- Connect the potential compensation cable (2).

7.5 Pneumatic connection

For the operation of the pneumatic components the sewing unit has to be supplied with anhydrous compressed air.

ATTENTION!

Material damage!

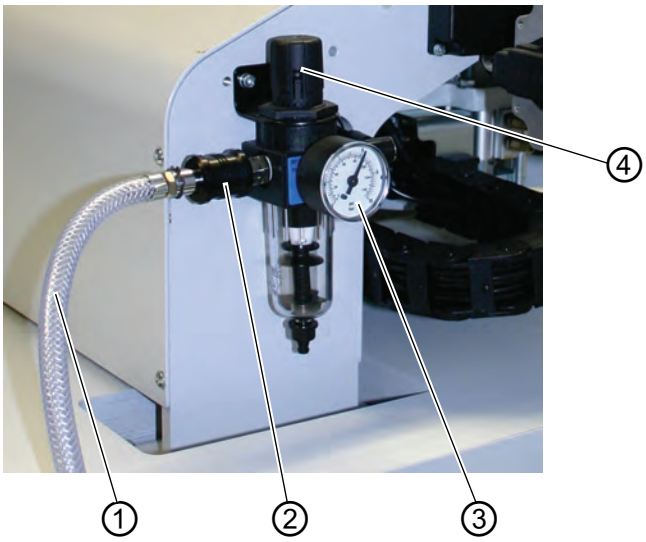
For a trouble-free function of the pneumatic control procedures the compressed air supply must operate as follows:

Even at the moment of the highest air consumption, the minimum operating pressure must not drop below **6 bar.**

In case of a too high loss of pressure:

- Increase the compressor output.
- Increase the diameter of the compressed air hose.

Fig. 129: Pneumatic connection



(1) - Connection hose
(2) - Slide valve
(3) - Pressure gauge
(4) - Turning handle

7.5.1 Connecting the maintenance unit for compressed air

- Connect the connection hose (1) to the slide valve (2) and the compressed air line by means of a hose coupling ¼ “.

Setting the operating pressure

- The operating pressure amounts to 6 bar.
  It can be read off at the manometer (3).
- To adjust the operating pressure pull up and turn handle (4).
- Turning in clockwise direction = the pressure is increased
- Turning counter-clockwise = the pressure is reduced

ATTENTION!

Material damage!

No oil-bearing compressed air must be fed from the compressed air line. Behind the filter cleaned compressed air is withdrawn as blowing air for cleaning machine parts and for blowing out workpieces. Oil particles contained in the blowing air lead to malfunctions and stains on the workpieces.

7.6 Connection to the in-house vacuum unit

Note:

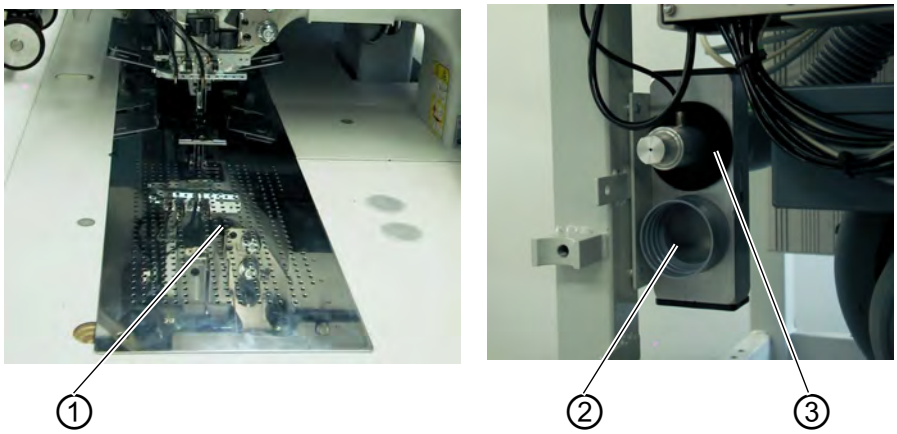
In case there is no in-house vacuum unit available, the vacuum device hat to be ordered in addition. The connection procedure is explained in the supplementary instructions.

ATTENTION!

Material damage!

When mounting the vacuum device (side-channel blower) it is absolutely necessary to exchange the joint ring (3) (black) at the connection valve against a filter ring (white) (included in the accessories).

Fig. 130: Connection vacuum unit



(1) - Working table
(2) - Connection vacuum unit
(3) - Seal ring

The suction unit facilitates the precise feeding and positioning of the workpiece on the work table (1).

- Connect the hose of the in-house vacuum unit to the connection valve (2).

7.7 Oil lubrication

WARNING

Caution: Danger of injury!

Oil can cause skin rashes.

Avoid a longer skin contact with the oil.

After contact wash yourself thoroughly.

ATTENTION

Risk of environmental damage

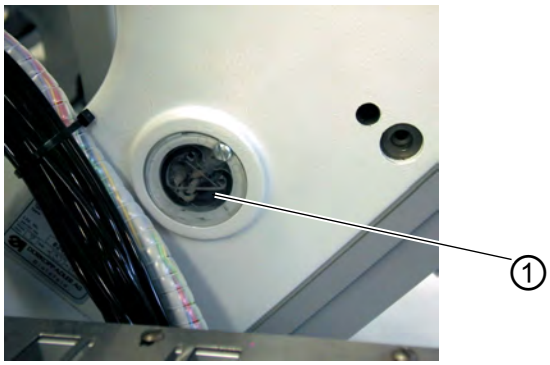
The handling and disposal of mineral oils is subject to legal regulations.
Deliver used oil to an authorized collecting station.
Protect your environment.
Do not spill any oil.

For filling up the oil reservoirs use nothing but DA 10 lubricating oil or an equivalent oil with the following specification:

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

Oil reservoir for the lubrication of the machine head

Fig. 131: Oil reservoir machine head

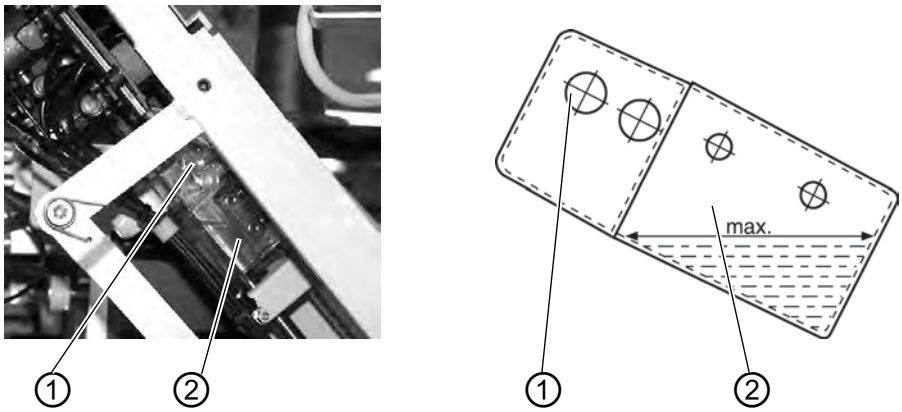


(1) - Oil reservoir

- Fill the oil reservoir (1) with oil through the drill-holes in the inspection glass.
  The oil level has to be between the markings “Min” and “Max”.

Oil reservoir for the hook lubrication

Fig. 132: Oil reservoir for the hook lubrication



(1) - Nipple

(2) - Oil reservoir

- Tilt the machine head up (📖 chapter 5.3).
- Fill the oil reservoir (2) with oil up to the “max.” through nipple (1). marking through nipple (1) (see sketch).

7.8 Putting into operation

After completion of the installation work a sewing test should be made.

- Plug in the mains plug.

DANGER

Risk of injury due to pointed items and glare

Switch off the main switch before threading in the needle and hook thread.

Do not look into the light source.

- Threading the needle thread (📖 chapter 5.5).
- Threading the hook thread (📖 chapter 5.6)
- Turn on the main switch.
  The control unit is initialized.
- Step back on the left pedal.
  Reference run is started.
  The transport carriage stops in its rear end position.
  The reference position is necessary in order to get a defined initial position of the transport carriage.
- By actuating the left pedal the various steps of the positioning procedure are triggered successively and the sewing cycle is started.

ATTENTION!

Material damage!

At sewing start the workpiece has to lie underneath the feeding clamps.

Movement of the transport carriage without material damages the coating of the feeding clamps.

- For the selection of the sewing program and further settings of the control unit, 📖 *part 4: Programming Instructions*.
- Positioning and operating, 📖 *part 1: Operating Instructions*.

7.9 Installation of the software

7.9.1 General information

Loading a specific sewing Loading a specific sewing software in the DACIII control unit is possible with the help of the “Programmed Dongle”.

The “Programmed Dongle” has a label indicating the class and software version.

Such a loading (booting) may be used in order to provide several DACIII control unit with a sewing software (first installation) or to install a newer machine software (update).

With the delivery of the machine only the test software (allowing the loading of sewing software) is installed in the control unit. The test software offers no further functions. If the test software gets damaged during the loading process, it is no longer possible to load a software using a dongle. In such a case use a PC with a loader cable.

ATTENTION!

Material damage!

The sewing unit is delivered with a machine software installed on it.

ATTENTION!

Turn off the main switch before connecting the dongle.

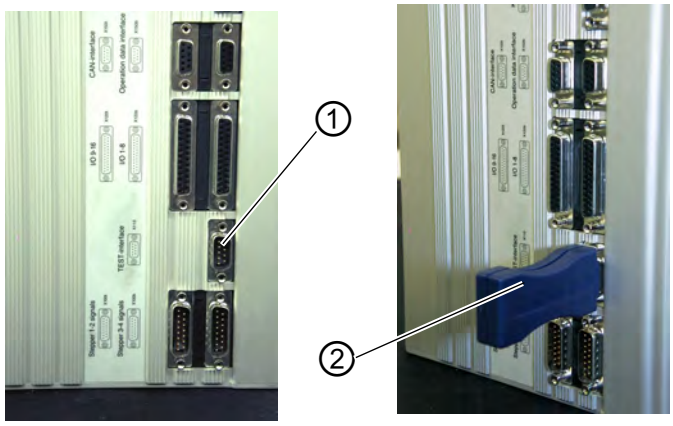
7.9.2 Loading the program

ATTENTION!

Material damage!

During the loading process do not remove the dongle and do not switch off the machine (otherwise you will destroy the software).

Fig. 133: Connecting the dongle



(1) - Plug X110 *(2) - Dongle*

- Turn off the main switch.
- Insert the dongle (2) into the port X110 (TEST-Interface) (1) of the control unit.
- Turn on the main switch. The Software will be loaded. The loading process takes less than 60 seconds.
- During this time, the version of the control panel will be displayed, e.g. “BF1 C A 03" (blue screen).
- Once the loading process is finished, the new program version will be displayed e.g. “745 A01”.
- The new operating system must be confirmed via the “OK” key.
- Then the machine's operating system will be started.
- Remove the dongle 2 from the port X110 (1).
- The machine is ready for operation.

Note!

Remove the dongle before re-starting the machine, otherwise it will load the sewing program again.

After a replacement (first installation) of the DAC III control, the error message Error 9900 or Error 9901 or Error 9902 will be displayed after loading the operating system.

First, an initialization has to be carried out, 🕮 *Programming Instructions chapter 6*.

7.9.3 Dongle-Update via Internet

ATTENTION!

Material damage!

When transferring the machine software onto the dongle, it will first be deleted (formatted).

The programs (sequences, parameters) saved on the dongle will then be deleted. If still needed, please make a backup of the files into a computer (desktop, notebook).

The required software “Dongle Copy” is available in the “Download Area”.

Dongles can be updated by means of Internet. In order to do so, visit the Dürkopp Adler AG homepage “www.duerkopp-adler.com”. In the sections “Download Area” and “Software” you will find the auxiliary download software and the appropriate machine software. The instructions available on the website as well, describe the complete update procedure of the dongle.

7.10 Customer service

If you have any questions regarding the machine, damage occurring, or wear, please contact

Dürkopp Adler AG
Potsdamer Str. 190
33719 Bielefeld
Phone: +49 (0) 180 5 383 756
Fax.: +49 (0) 521 925 2594
E-Mail: service@duerkopp-adler.com
Internet: www.duerkopp-adler.com

8 Decommissioning

In order to remove the machine from service for a longer period or definitely, some operations have to be carried out.

WARNUNG

Risk of injury due lacking of care

When decommissioning the machine, a lack of care or expertise can lead to serious injuries.

Clean the machine ONLY when it is switched off.

Avoid skin contact with oil rests.

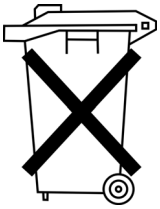
ONLY trained personnel may disconnect the machine.

How to decommission the machine:

1. Switch off the main switch.
2. Pull out the mains plug.
3. Disconnect the pneumatic connection.
4. Wipe out the oil rests in the oil sunk underneath the fabric plate with a cloth.
5. Cover the control panel in order to protect it from dust and dirt.
6. If possible, completely cover the machine in order to protect it from dust, dirt or damage.

When transporting the machine, pay heed to the necessary safety precautions.

9 Disposal



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

The machine must be disposed of in an appropriate and correct manner according to the national regulations.

ATTENTION

Risk of environmental damage due to incorrect oil disposal.

Incorrect disposal of old oil can result in severe environmental damage.

ALWAYS observe the legally prescribed regulations for disposal of oil.

When disposing of the machine, be aware that it consists of a range of different materials (steel, plastic, electronic components, etc.). Observe the applicable national regulations for disposal.

DÜRKOPP ADLER AG
Potsdamer Str. 190
33719 Bielefeld
Germany
Phone +49 (0) 521 925 00
E-Mail: service@duerkopp-adler.com
www.duerkopp-adler.com

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