Contents **Page:**

1. Product Description

1.1 Description of Proper Use/Proper Application

The 743-422 is a sewing unit which can be properly used for sewing light to medium-heavy material.
Such material is, as a rule, material made up of textile fibers or also leather. These sewing materials are used in the garment industry.

As a rule only dry material may be worked with this sewing unit. The material may be no thicker than 4 mm when it is pressed together by the lowered guide rail.
The material may contain no hard objects.

The seam is generally made with threads of textile fibers in the following dimensions:

for needle thread:	Poly - Poly 80/2
	Poly - Co 80/2
for bobbin thread:	Poly - Poly 80/2 to 90/2
	Poly - Co 80/2 to 90/2

If other threads are to be used the dangers arising therefrom must first be considered and, if required, appropriate safety measures taken.

This sewing unit may only be installed and operated in dry and clean areas. If the sewing unit is employed in other areas which are not dry and clean further measures may be necessary which are to be agreed upon (see EN 60204-3-1:1990).

We, as a manufacturer of industrial sewing machines, assume that our products will be used by operators with some training so that all normal operations and their dangers can be presumed to be known.

1.2 Short Description

The **DÜRKOPP ADLER 743-422** is a sewing unit for automated sewing of collar stays and gorge seams on jackets.

The unit is equipped with a machine head in single needle-double saddle stitch execution.

Depending on the execution of the outer collar one of two positioning devices can be chosen for the positioning of collars and facings. Two (collar stay) or three (gorge seam) different positioning functions are available. The positioning functions are called up on the front panel of the control unit.

Gorge Seam

The positioning of the facings occurs first at the left positioning point and then at the right positioning point of the positioning station. Placement is left for the sewing of the right facings on the outer collar and right for the sewing of the left facings on the outer collar.

By selecting the appropriate sewing program the securing of the seam can occur as desired at the seam beginning or the seam end through seam bartacking or stitch condensation. The number of stitches and stitch length can be selected on the front panel of the control unit.

Collar Stay

For sewing collar stays the seam width is automatically set to 6 mm by selecting the appropriate sewing program.
Seam beginning and seam end are executed with stitch condensation.

The complete control of the work sequence occurs in the pre-selected program sequence via the **Microcontrol unit**.

It contains the integrated Multitest testing and monitoring system. A microcomputer assumes the control tasks, monitors the sewing process and signals operating errors and malfunctions in the display.

The optimized work station design and the new step motor technology contribute to the high productivity of the 743-422.

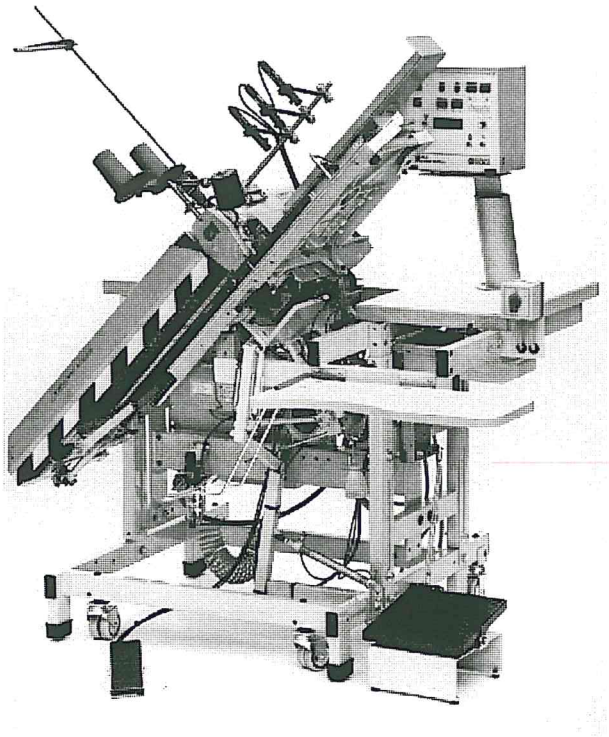
1.3 Technical Data

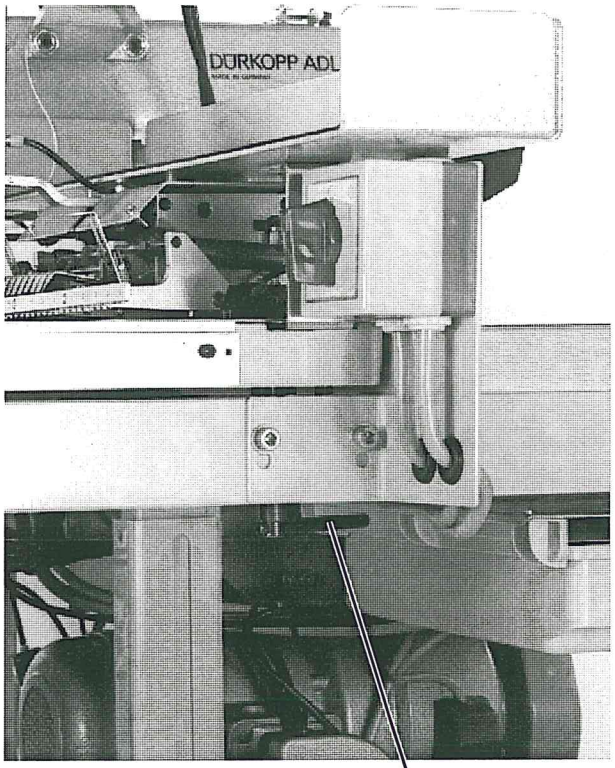
Machine head:	Class 935-271-21	
Needle system:	797	
Needle thickness:	Nm 90	
Threads:	Core twisted thread	
	Needle thread	Nm 80/2
	Bobbin thread	Nm 80/2 to 90/2
Stitch type:	Single needle-Double saddle stitch	
Number of stitches:	4000 / min	
Stitch length:	Normal Seam:	0,9 - 3,1 mm
	Seam bartacking:	0,8 - 2,5 mm (2 - 9 stitches)
	Stitch condensation:	0,7 - 1,8 mm (4 - 9 stitches)
Sewing length:	max. 420 mm	
Transport length:	max. 500 mm	
Motor type:	Kobold-Posistop-Motor POKD 13-0/S51	
Nominal rating:	0,55 KW	
Rpm:	2800 rpm	
Operating pressure:	6 bar	
Air consumption:	approx. 2 NL per work cycle	
Nominal voltage:	743 100114	3 ~ 380 - 400 V + N, 50 Hz
	743 100154	3 ~ 220 - 230 V, 50 Hz
	743 100194	3 ~ 220 - 230 V, 60 Hz
	The sewing unit is delivered with **one** of the voltage sets appropriate to the nominal voltage.	
Dimensions:	Length 1500 mm	
	Width 1100 mm	
Work height:	870...1100 (upper edge of the table top)	

2. Operation

2.1 Tilting Up the Machine Head

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





– Run the transport carriage into the end position by pressing the " ⇧ " key.

Caution Risk of Injury !

Turn off main switch.
Tilt up the machine head only with the sewing unit turned off.

– Press down the machine plate and turn the lock lever 1 to the right out of its catch.
The machine head is unlocked.
– Carefully tilt the machine head up.

2.2 Needles and Threads

Needle system: 797
Needle thickness: Nm 90

High sewing precision and good sewability is achieved with the following core twisted threads:

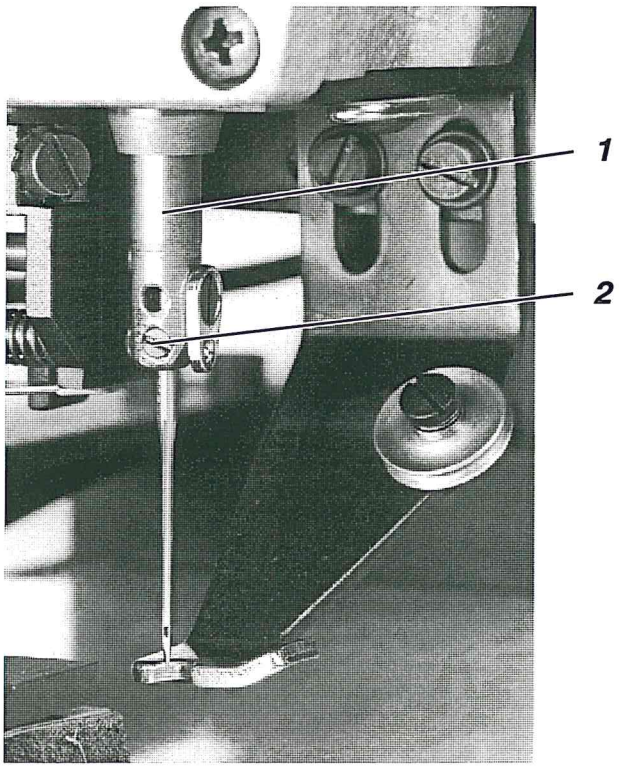
- double polyester endless-polyester covered (e.g. Epic Poly-Poly, Rasant x, Saba C, ...)
- double polyester endless-cotton covered (e.g. Frikka, Koban, Rasant, ...)

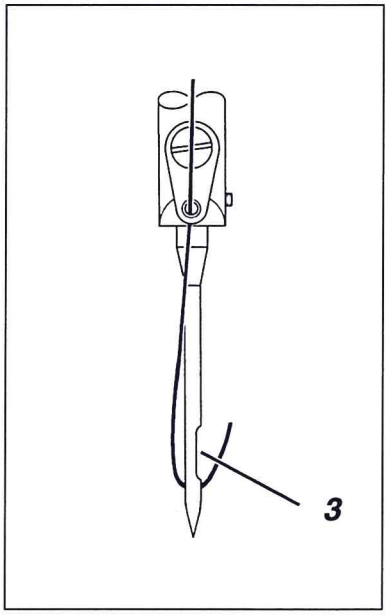
Recommended thread strengths, thread tensions and thread regulator positions for **needle thickness Nm 90**:

Needle thread : Nm 120/2
Needle thread tension: 60 - 100 g
Thread regulator position: 2,5

Bobbin thread: Nm 140/2
Bobbin thread tension: 30 - 40 g

Changing the Needle:



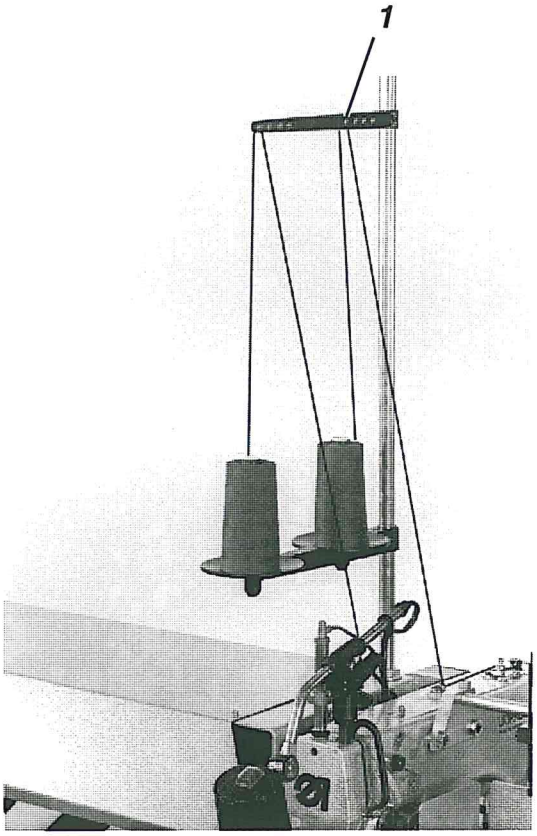


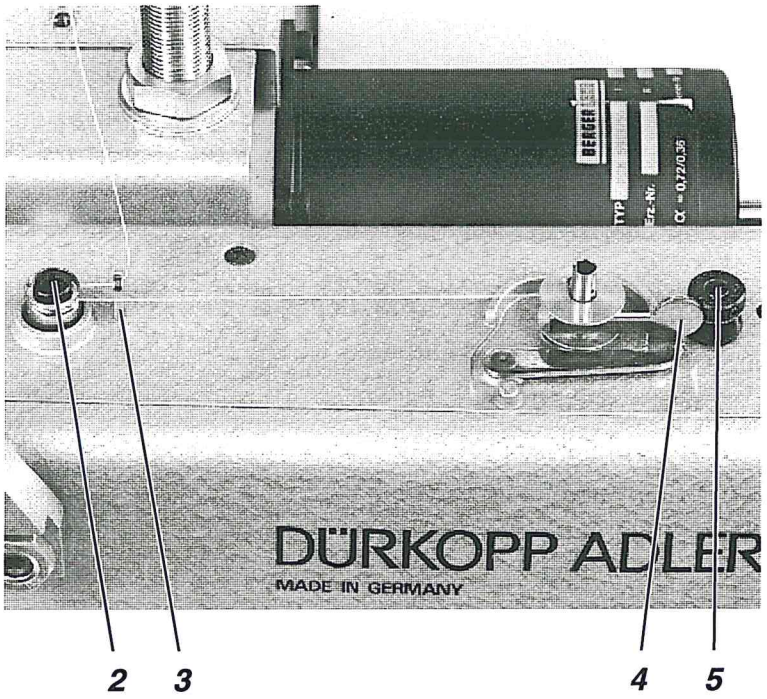
Caution Risk of Injury !

Turn off main switch.
Change the needle only with the sewing unit turned off.

- Loosen screw 2 and remove the needle.
- Insert the new needle into the hole in the needle rod 1 until it hits bottom.
  Attention!
  The furrow 3 of the needle must face right, that is to the hook tip (see sketch).
- Tighten screw 2.

2.3 Spooling Up the Bobbin Thread





- Remove thread rests found on the bobbin hub before spooling.
- Place thread roll on the thread stand.
- Thread the thread through hole 1 of the thread stand.
- Guide the thread through the thread guide 3.
- Guide the thread between the tension discs of the bobbin thread tensioner 2.
- Wind the thread to the right onto the bobbin hub.
- Pull the thread end through the cutting clamp 5 and cut.
- Press the bobbin winder flap 4 against the bobbin hub.
  The bobbin winder is switched on and ready to start.
- Start sewing.
- After reaching the set bobbin capacity the winder switches off by itself.
  To set the bobbin capacity see the Service Instructions.

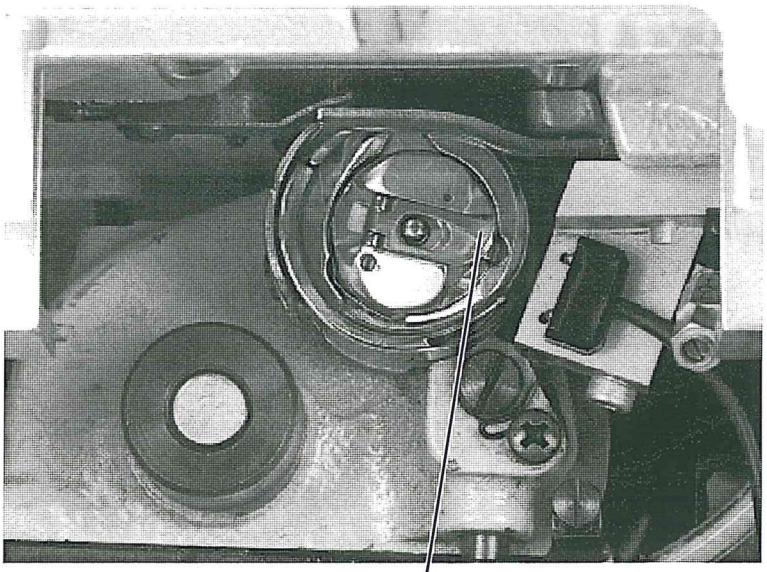
ATTENTION !

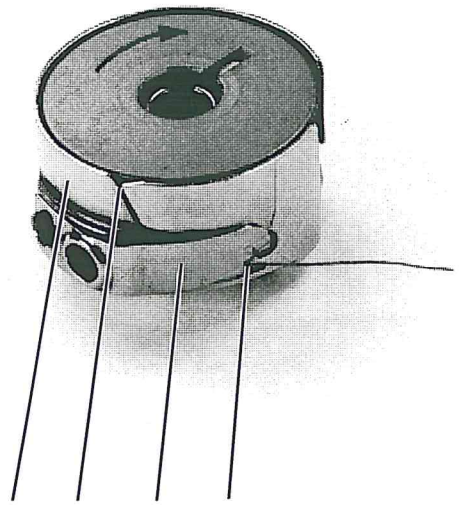
The initial value for the counter to monitor the bobbin thread reserve is dependent on the wound bobbin thread quantity.

Re-set the initial value of the counter after the following changes:

- Altering the bobbin capacity
- Changing the thread strength

2.4 Changing the Bobbin





Caution risk of injury !

Turn off main switch.
Change the bobbin only with the sewing unit turned off.

The upper part of the bobbin case is accessable below the viewing window in the machine plate.

Removing the empty bobbin:

- Lift up the bobbin case flap 1.
- Remove the upper part of the bobbin case 2 with bobbin.
- Remove the bobbin from the upper part of the bobbin case 2.

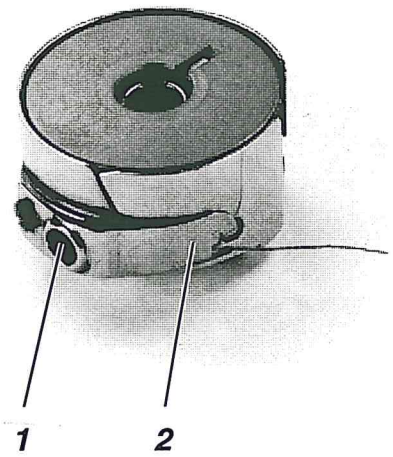
Inserting a full bobbin:

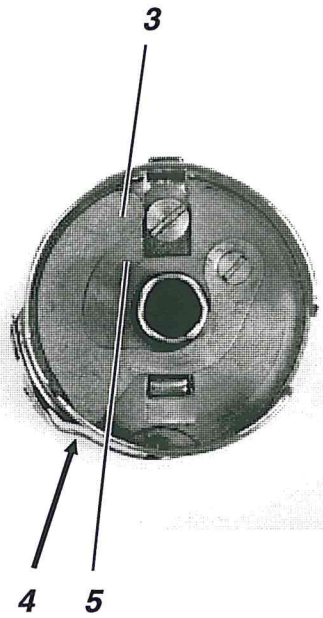
- Insert a full bobbin into the upper part of the bobbin case 2.
- Pull the thread through the slot 3 under the leaf spring 4 into hole 5.
- Pull the thread about 5 cm out of the upper part of the bobbin case 2.
  When the thread is pulled off the bobbin must turn in the direction of the arrow.
- Insert the upper part of the bobbin case 2 again.
- Turn the main switch on.
- Start a new sewing sequence.

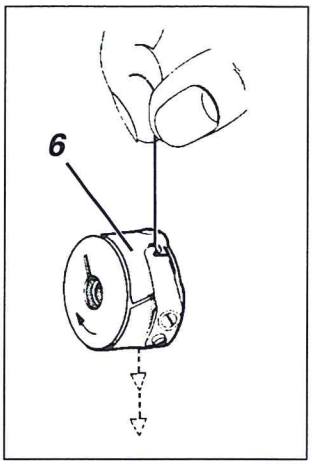
2.5 Bobbin Thread Tension

Of the recommended bobbin thread tension half should be achieved by the brake spring 3 and the other half by the tension spring 2.

The brake spring 3 hinders a running on of the bobbin when the machine stops or bobbin thread is pulled off with a jerk.







Setting the tension spring 2 and the brake spring 3:

- Turn the set screw 1 back until the tension in the leaf spring 2 is completely released.
- Set the brake spring 3 by turning in the set screw 4.
  The set screw 4 is on the underside of the upper part of the bobbin case.
  The braking power is correctly set when the brake spring 3 lies about 1 mm above surface 5.
- Insert the bobbin into the upper part of the bobbin case 6 and thread the bobbin thread.
- Insert the upper part of the bobbin case 6 with bobbin into the hook.
- Using a stitch without material pull the bobbin thread to the upper side of the needle hole with the aid of the needle thread.
- Pull off the bobbin thread at an angle of 45°.
  About half of the tension value should be felt.
- Tighten the set screw 1 to the recommended tension value.

Base setting for tension spring 2:

- The upper part of the bobbin case 6 should lower slowly through its own weight (see sketch).

2.6 Counter to Monitor the Bobbin Thread Reserve

The in program P58 pre-setable decrementer monitors the bobbin thread reserve.
It is set back 1 value after every 100 stitches.

The height of the to be selected initial value is dependent on

- the strength of the bobbin thread used
- the amount of thread spooled onto the bobbin.

Example:

35000 stitches can be sewn with one bobbin filling.
The initial value to be set thus results from:

35000 stitches : 100 = 350 stitches

The precise initial value to be set is best established during operation:

- Insert a full bobbin.
- Pre-set the initial value in program P58.
  See Short Description Microcontrol.

ATTENTION !

By setting the initial value at "**0000**" the bobbin thread monitoring via the counter is switched off.

- Start the sewing process.
- If, when the counter reaches "**0000**", there is stll a large quantity of thread remaining on the bobbin, then the set initial value can be increased.
- When the counter reaches "**0000**" the seam in progress will be completed.
  The display shows the symbol "**H**" (bobbin empty).
  The sewing unit cannot be started.
- Turn off main switch.

Caution Risk of Injury !

Turn off main switch.
Change the bobbin only with the sewing unit turned off.

In order to start a sewing sequence after a bobbin change it is essential that the main switch be turned off.

- Change the bobbin.
- Turn on main switch.
  When switching on the initial value of the counter is automatically loaded.

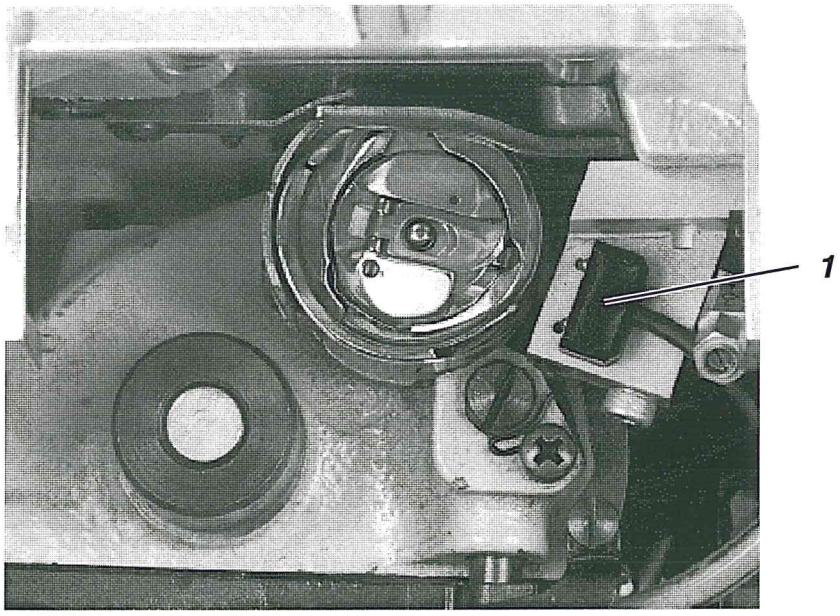
After a premature change of bobbin (e.g. change of color):

- Press the "Σ" key and hold down.
- At the same time turn on the main switch.
  The initial value of the counter appears again.

2.7 Remaining Thread Monitor

The remaining thread monitor monitors the underthread spool with an infrared reflected light barrier 1.

Here the decrementer in program P58 must be switched off.



- With an empty bobbin the light beam sent out by the light barrier 1 is reflected by the blank surface of the bobbin hub.
- The display of the control unit shows the symbol "**H**" (bobbin empty).
- The thread remaining in the reserve groove of the bobbin hub completes the seam securely.

Caution Risk of Injury !

Turn off main switch.
Change the bobbin only with the sewing unit turned off.

- Turn off main switch.
- Change the bobbin.
- Clean the lens of the light barrier with a soft cloth at every bobbin change.
- Turn on main switch.
- Start a new sewing procedure.

2.8 Threading the Needle Thread

Caution Risk of Injury !

Turn off main switch.
Thread the needle thread only with the sewing unit turned off.

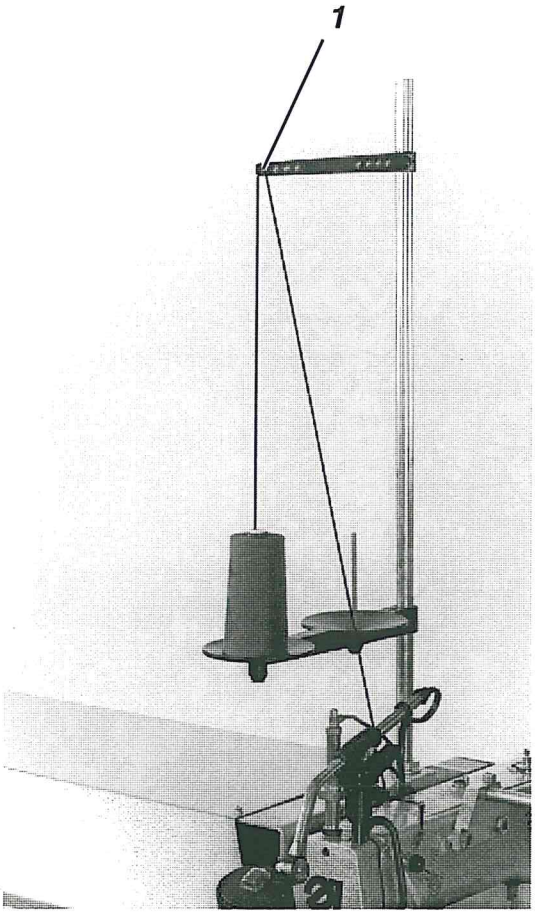
Threading the needle thread occurs as shown in the illustrations on the following page in ascending numerical order:

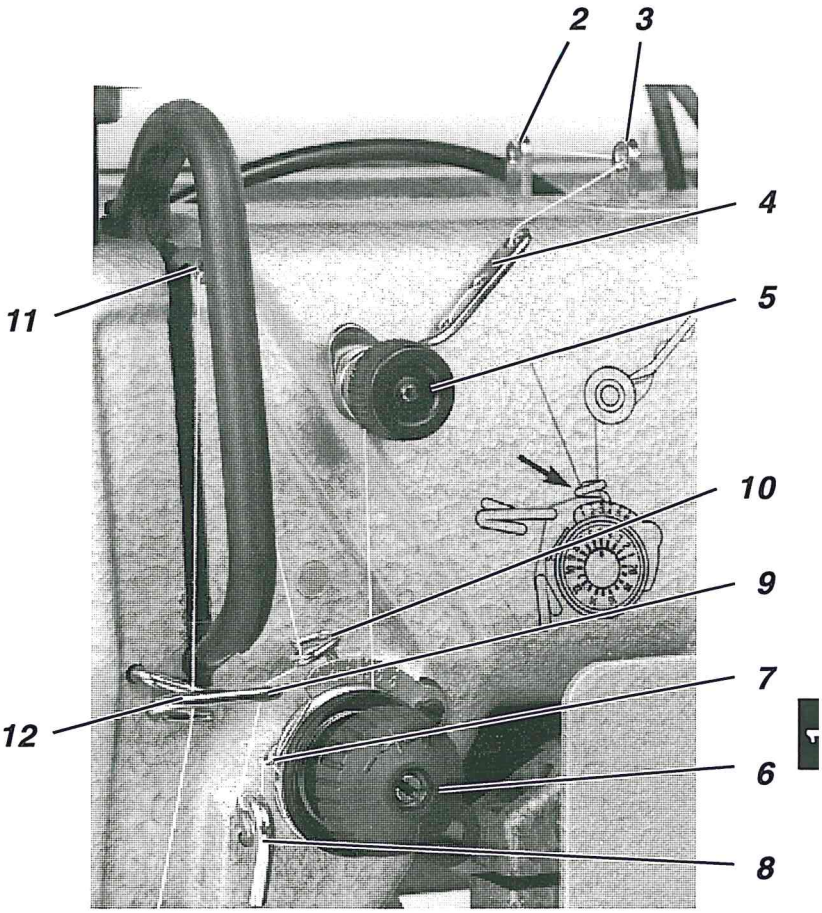
- Place the thread roll on the thread stand.
- Guide thread from the thread roll through hole 1 of the thread stand.
- Guide the thread through the thread guides 2 and 3.
- Guide the thread through the holes on the thread guide 4 as shown.
- Guide the thread between the tension discs of the pre-tensioner 5.
- Guide the thread between the tension discs of the main tensioner 6.
- Guide the thread thread through the thread take-up spring 7.
- Guide the thread past under the thread guide 8.
- Guide the thread through the thread guide 9.
- Guide the thread through the thread regulator 10.
- Guide the thread through the hole in the thread guide lever 11.
- Guide the thread down through the thread guides 12, 13 and 14.
- Guide the thread through the thread guide 15 on the needle rod.
- Guide the thread through the needle eye from the front to the back.

ATTENTION !

A loose thread end can be pulled out of the needle by the transport rail running through the positioning area.

- Pull the thread end hanging out of the needle between the discs 16 for the first sewing sequence.
  During normal operation the needle thread is caught by the thread catcher 17 and clamped after trimming.


1


2
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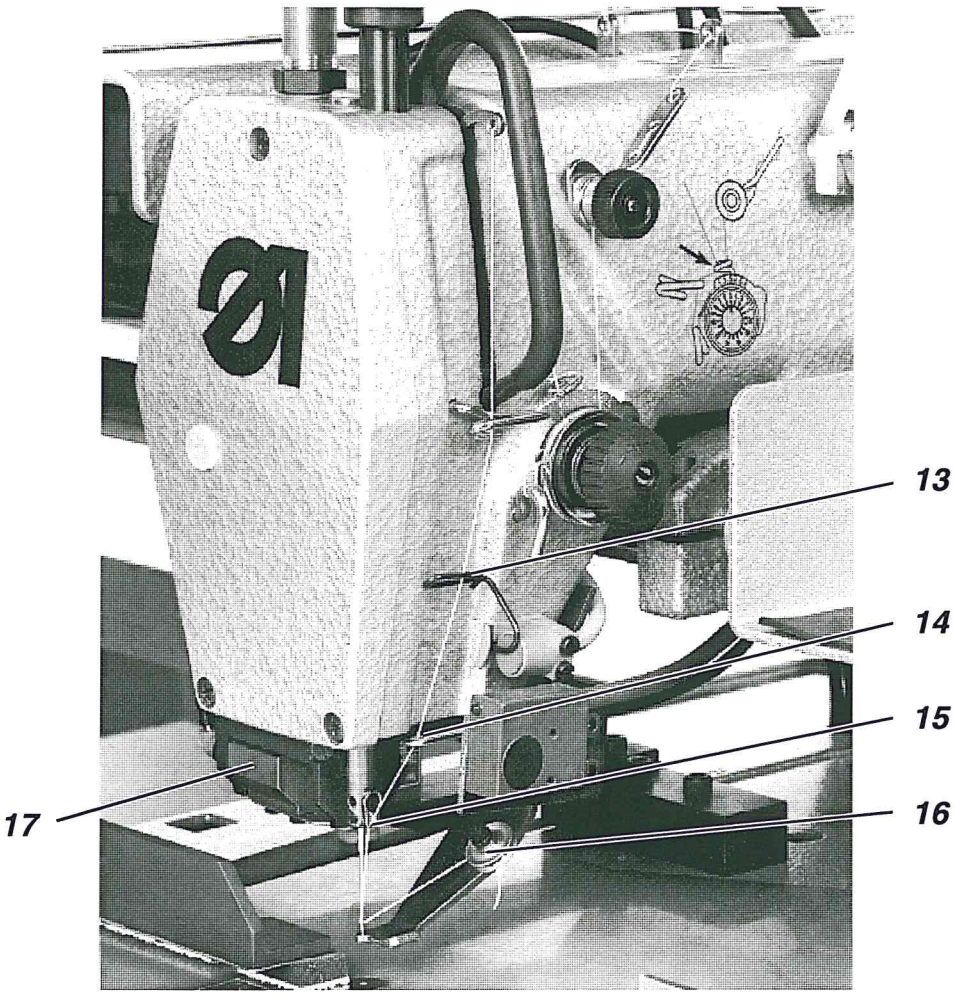

13
14
15
17
16

2.9 Thread Regulator

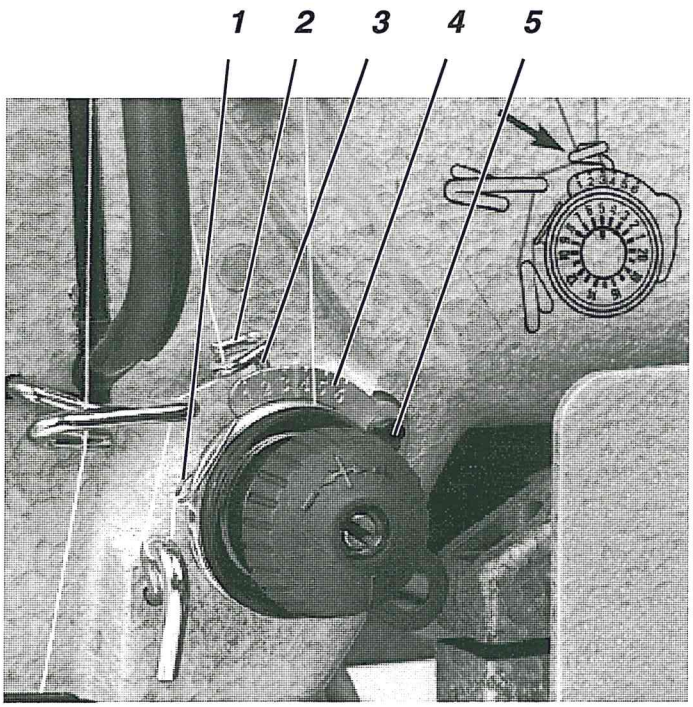
The thread regulator 2 can regulate the needle thread quantity required for stitch formation.

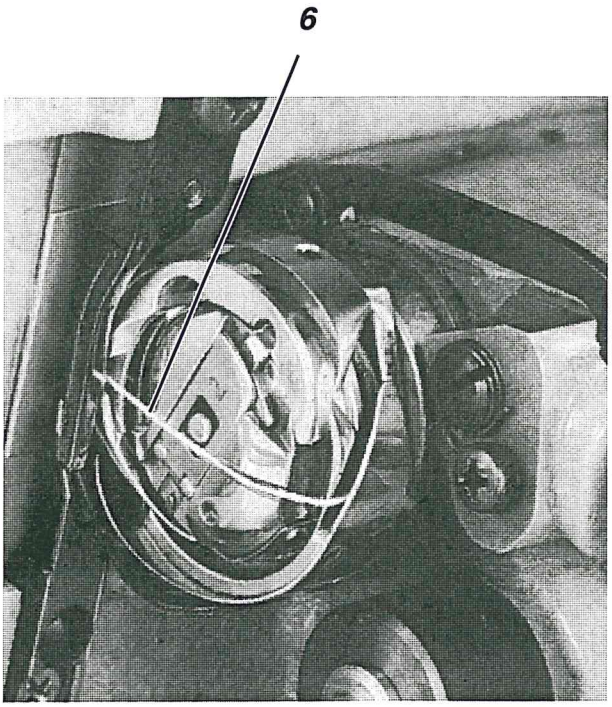
The setting is dependent on:

- Stitch length
- Material thickness
- Characteristics of the thread used.

Only a precisely set thread regulator assures an optimal sewing result.

With a correct setting the needle thread loop 6 should glide over the hook without excess and little tension.





- Loosen screw 5.
- Set the thread regulator 2.
  The vertical wire 3 in conjunction with scale 4 serves as a setting aid (guide value: 2.5).
- Tighten screw 5.

Setting notes:

- With a correct setting of the thread regulator the following must apply:
  When the greatest amount of thread is required, the thread take-up spring 1 must be pulled approx. 1 mm down out of its upper end position.
  This is the case when the thread loop 6 passes the maximum hook dimension.
- The dimension 1 mm is a guide value.
  Depending on the tension of the thread take-up spring 1 it can be greater or smaller.

2.10 Needle Thread Tension

Pre-tensioning 1

For the positive functioning of the thread trimmer with open main tensioning 3 a residual tension on the needle thread is necessary.

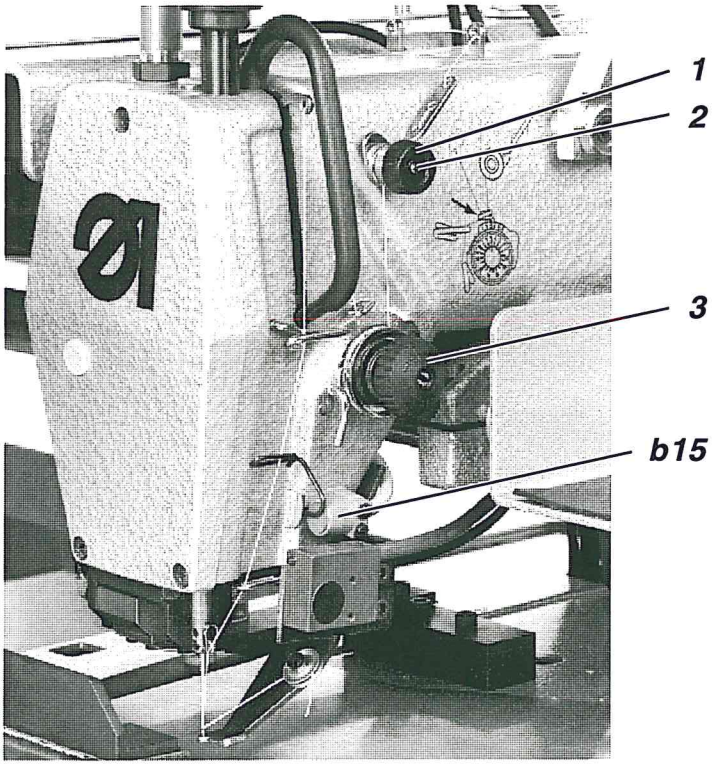
This residual tension is created by pre-tensioning 1.
It also influences the length of the cut needle thread end at the same time.

- As a base position turn the knurled nut until its face is flush with bolt 2.
- After greater adjustments to the pre-tensioning 1 regulate the main tension 3 again accordingly.

Maintension 3

The recommended needle thread tension for example 80 g. is the result of pretension 1 and maintension together.

- The adjustment is done by turning the round nut at the maintension



2.11 Needle Thread Monitor

- After a needle thread break the switch b15 remains inoperative.
- The sewing drive is stopped in position 2 (needle up).
  The display shows the symbol "**-x-**" (needle thread break).

Caution Risk of Injury !

Before threading it is essential to turn off the main switch.
Re-newed starting is only possible by switching the main switch off and on again.

- Re-thread the needle thread.
- Turn on main switch and start new sewing sequence.

2.12 Base Position and Operational Readiness

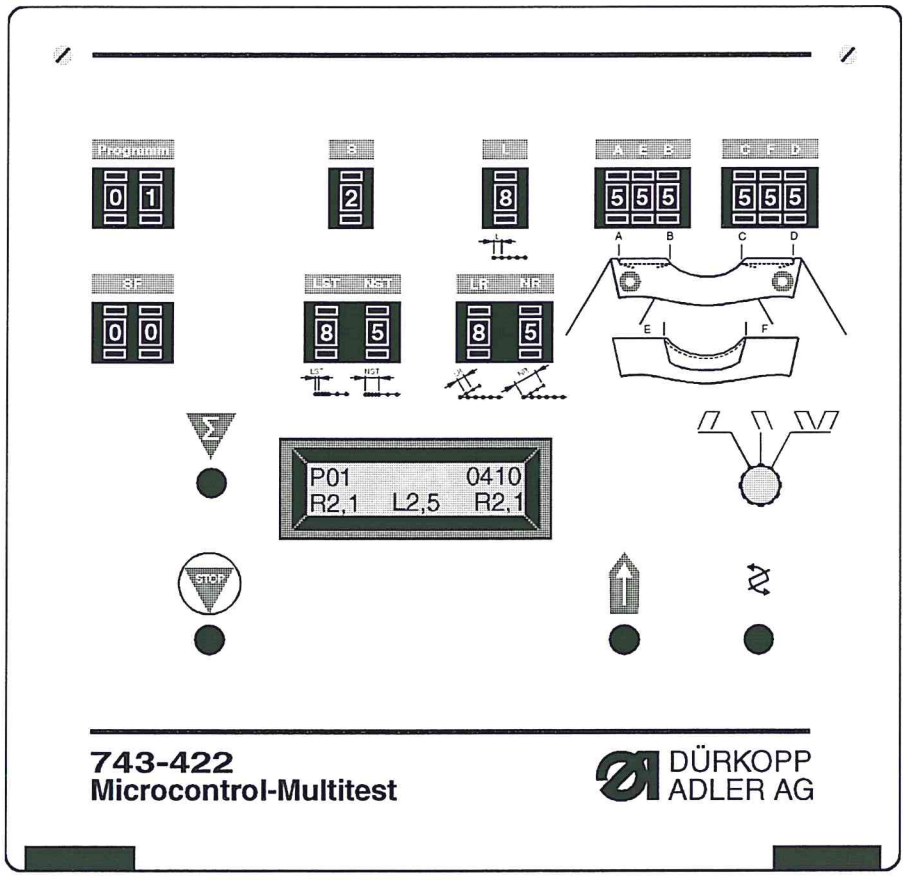
Base Position

For operational readiness of the sewing unit the transport carriage must be in its left base position.

- Turn on main switch.
  The controls check if the transport carriage is in its base position.
- If the transport carriage is not in its base position the display shows "**<---**".
  Run the transport carriage in its base position by pressing the "⇧" key.

Operational Readiness

- The counter display in the right half of the first display line signals the operational readiness of the sewing unit.
- If malfunctions or error messages are displayed no start is possible.
- Correct malfunctions.
  The meaning of the individual error messages can be found in the short description of the Microcontrol.
- Set the "**Programm**" switch to the desired sewing program.
- Press the "«**STOP**" key.
  The desired sewing program is activated.
  The positioning of the sewing pieces can begin.



2.13 Positioning Functions and Start of Sewing

Positioning functions

With the "**S**" switch one of three different positioning methods can be selected. Function sequence see chapter 3.5 of the Short Description Microcontrol.

- Activate the desired function of the positioning station 4 by tapping the pedal (e.g. lower material clamp center 5 (only for collar stays), lower clamping strip 6, lower material clamp 3, lower holder 1 and holder bar 2).
- By stepping back on the pedal each function called up can be cancelled.
  Exception:
  The at times last function (rail transport) cannot be cancelled.

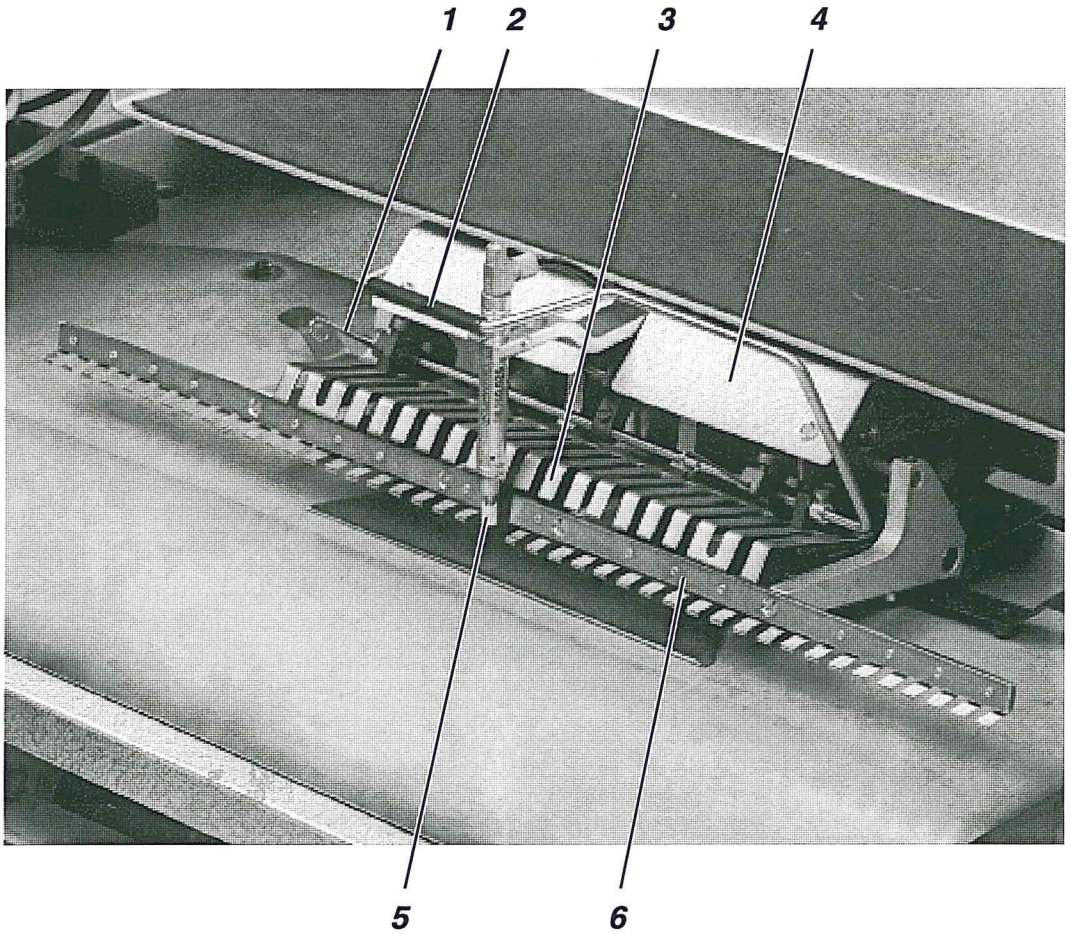
Start of Sewing

Caution Risk of Injury !

After the switching on of the sewing sequence the material transport rail runs rapidly out of its base position to the right.

Do not reach into the run area of the moving material transport rail.

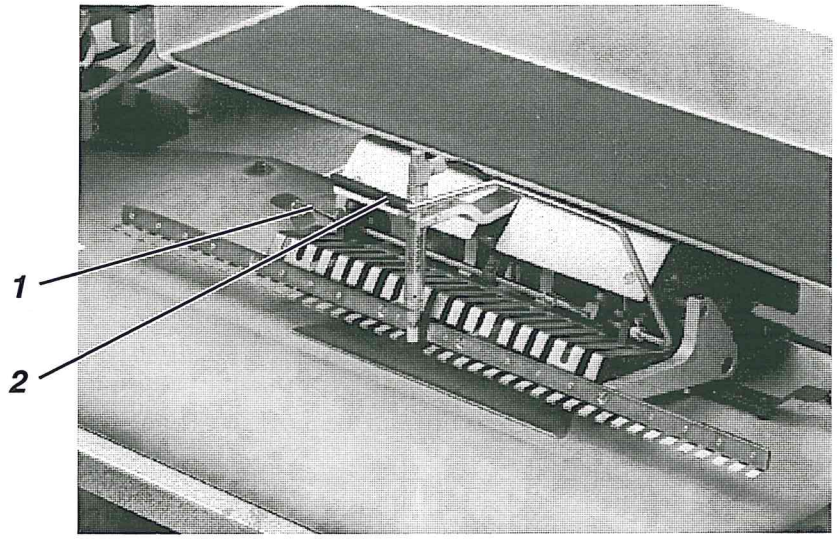
- Depending on the setting of switch "**S**" the sewing start occurs at the same time as the tapping of the last positioning function or through a special pedal tap.
- By pressing the "**STOP**" key on the control unit front panel the complete work sequence is immediately stopped.



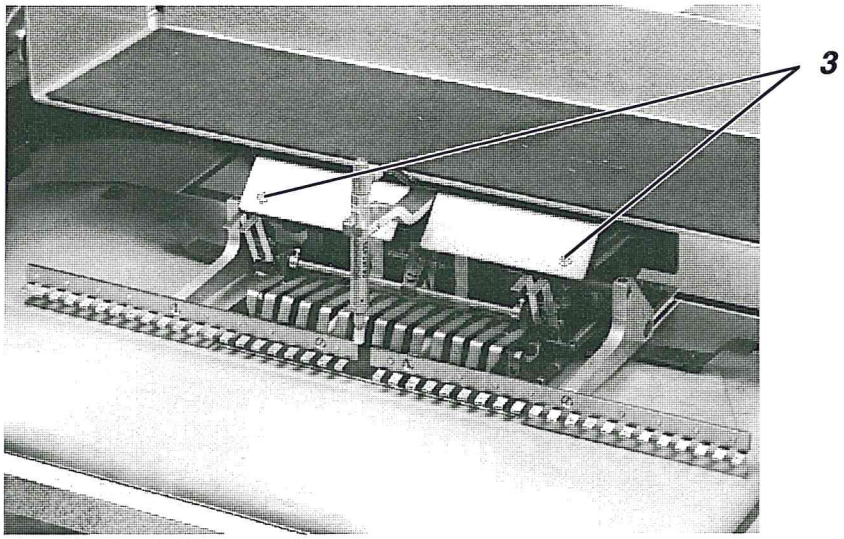
2.14 Positioning Examples

With the conversion parts found in the accessories pack the positioning station can be adapted to the various work procedures. Depending on the work procedure individual clamping elements, such as e.g. the holder 1 and holder bar 2, must be either removed or added (see Service Instructions).

Clamping Elements for Open Collars



Clamping Elements for Turned-Over Collars



With a normal work sequence one starts with the sewing of the right facing to the collar. The positioning occurs at the left positioning point.

For alternating positioning left-right with both partial seams the switch b130 must be set to the right.

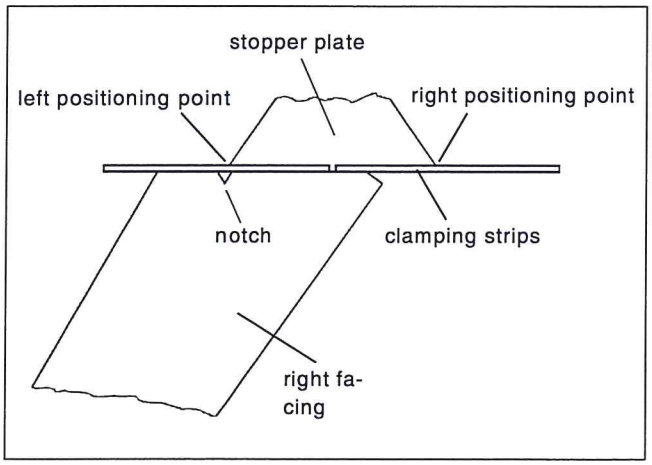
The light diodes 3 on the positioning station show at which positioning point positioning occurs next.

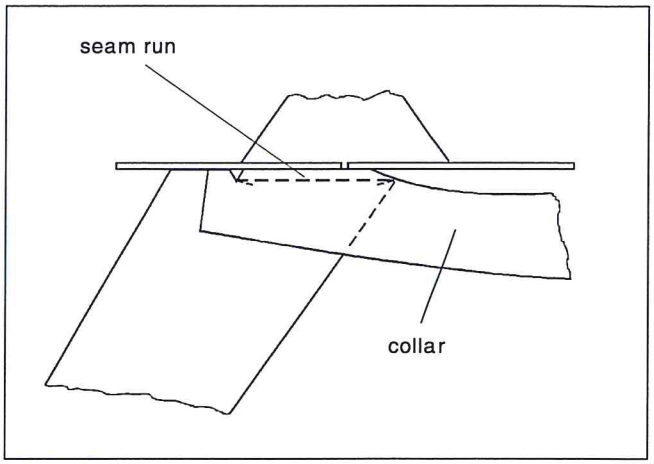
Note:

The positioning examples described on the following pages apply only for the given setting of the pre-selector switch "**S**".
For the function sequences with other switch settings see chapter 3.5 of the Short Description Microcontrol.

2.14.1 Open Collars (Not pre-finished Collars)

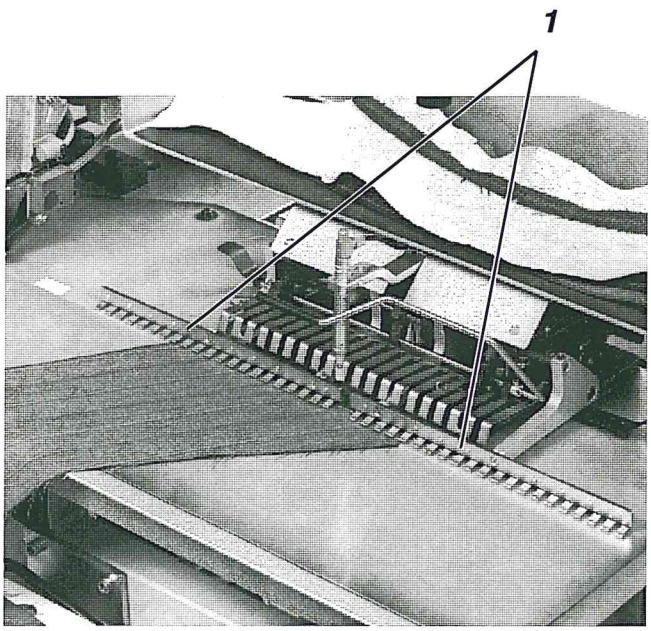
Positioning Example A: Gorge seam: Switch "**S**" in setting "**0**"

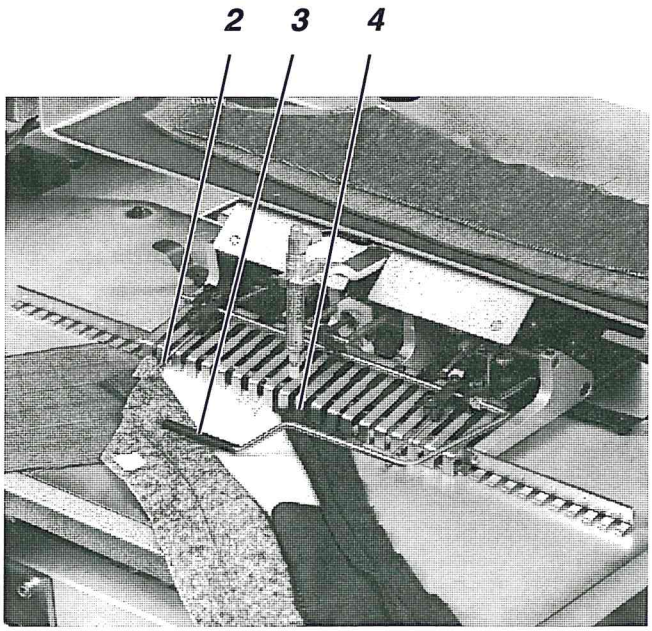




1st Partial seam

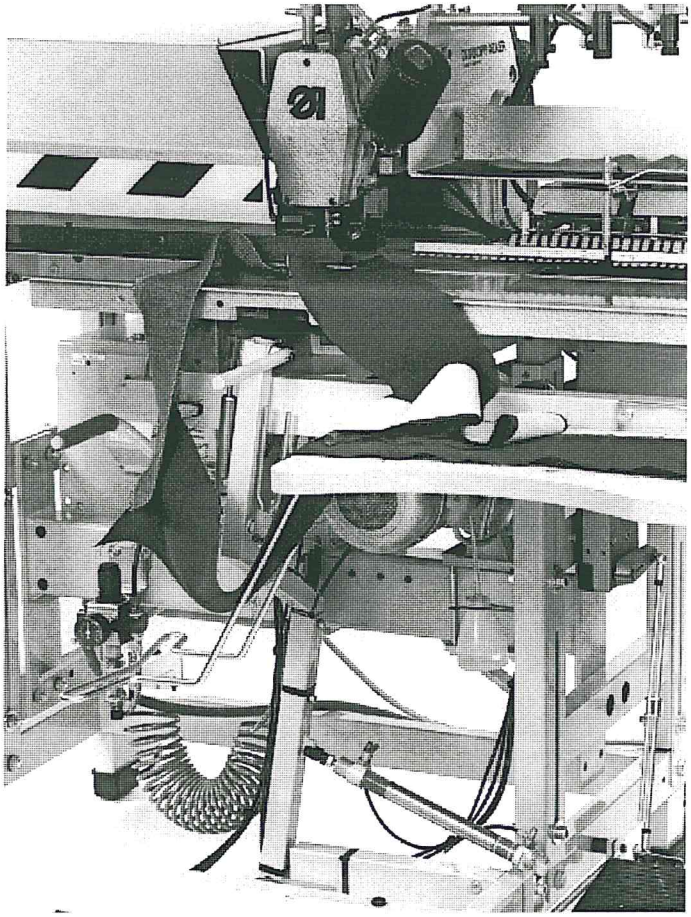
- Position the right facing on the stopper plate.
  Hereby position the notch at the left positioning point.
- 1st Pedal tap: Lower clamping strips 1.
- Position the collar over the right facing on clamping strip 1.
  Hereby also position the notch of the collar at the left positioning point.
- 2nd Pedal tap: Lower material clamp 4,
  lower holder 2 and holder bar 3,
  rail transport on,
  sewing on.
- The material clamp holds the piece after sewing.





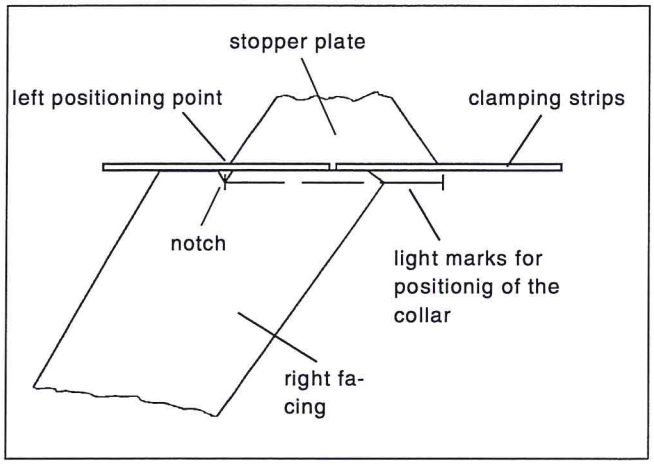
2nd Partial seam

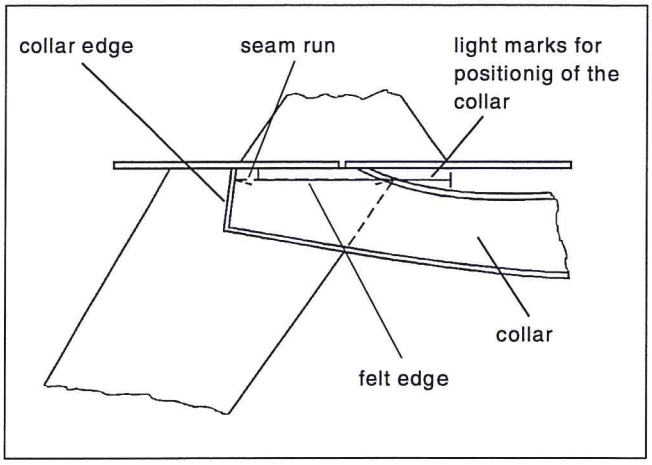
- Position the left facing on the stopper plate.
  Hereby position the notch at the right positioning point.
- 1st Pedal tap: Lower clamping strips.
- Position the collar over the left facing on the stopper plate.
  Hereby also position the notch of the collar at the right positioning point.
- 2nd Pedal tap: Lower material clamp,
  Lower holder and holder bar,
  rail transport on,
  sewing on,
  removing and storing of the finished piece.



2.14.2 Turned-Over Collars (Pre-finished Collars)

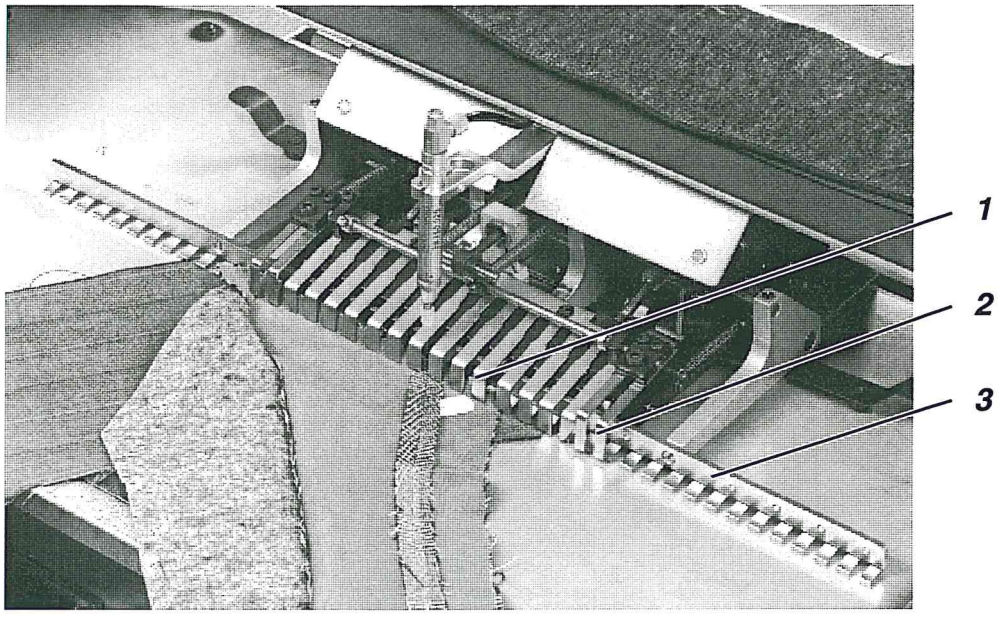
Positioning example B: Gorge seam: Schalter "**S**" in Setting "**1**"





1st Partial seam

- Position the right facing on the stopper plate.
  Hereby position the notch at the left positioning point.
- 1st Pedal tap: lower clamping strips 3.
- Align the collar with its felt edge and collar edge to the left light marking.
- 2nd Pedal tap: Lower material clamp 1.
- Lay the felt part back out of the seam run.
- 3rd Pedal tap: Lower cloth claws 2,
  rail transport on,
  sewing on.
- The material clamp holds the piece after sewing.

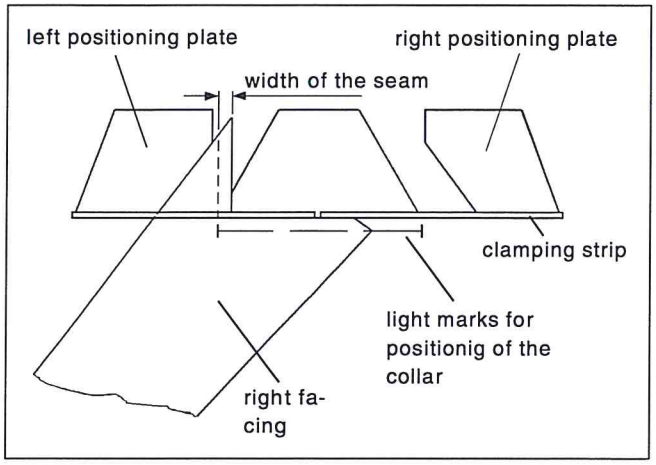


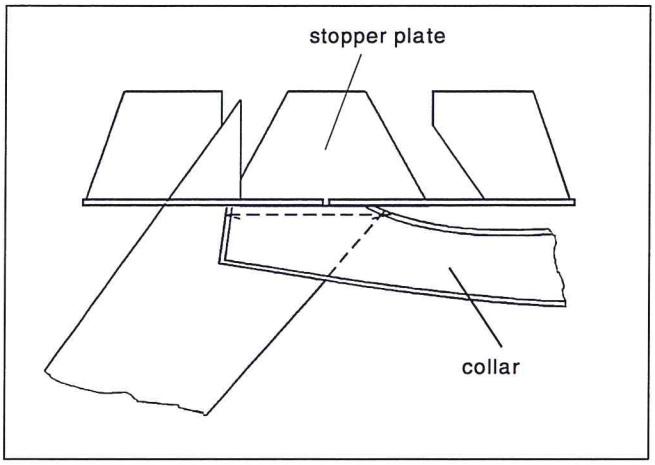
2nd Partial seam

- The steps described for the 1st partial seam are to be conducted at the right positioning point.
- After sewing the finished piece is automatically removed and stored.

2.14.3 Facings with Rising Cut (Pointed Cut)

Positioning Example C: Gorge seam





With pointed cut processing the 1st partial seam must be displaced by the width of the seam at the rising cut at the seam beginning and the 2nd partial seam at the seam end.

The seam displacement can be made as follows:

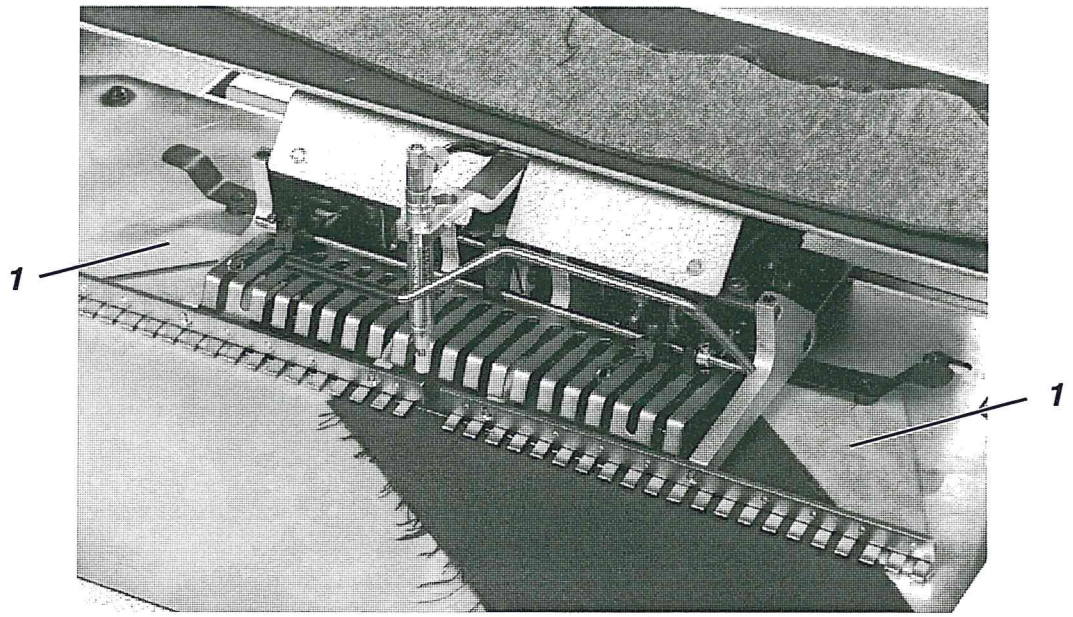
- Align the parts accordingly when positioning.
- Seam displacement of seam end and seam beginning via switch "**SF**".

Seam displacement via switch "SF":

- Set the pre-selector switch "**SF**" to a value between 1 and 20. Changing the setting by one digit causes a displacement of the seam of about 0.6 mm.
  Switch setting "**20**": maximum seam displacement
  Switch setting "**00**": no seam displacement

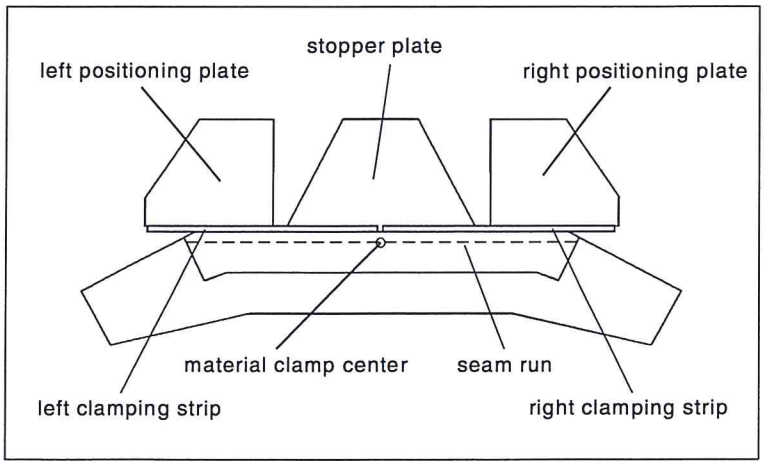
The positioning functions occur as described in the examples A and B.

- In order to achieve a uniform width of the **right and left cut point**, align the pointed cut to the forward edge of the positioning plates 1 which are adapted to the specific customer.



2.14.4 Collar Stay Seam

Positioning Example D: Sewing program P04, switch "**S**" in setting "**0**"



1st Partial seam

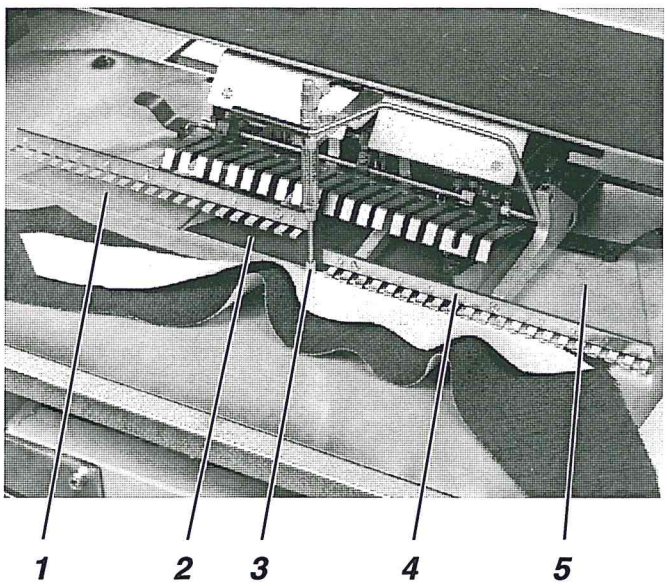
- Position the collar with cloth strips on stopper plate 2 and align centered under material clamp center 3.
- 1st Pedal tap: Lower material clamp center 3.
- Align right collar half with cloth strips and position on positioning plate 1.
- 2nd Pedal tap: Lower right clamping strip 4.
- Align left collar half with cloth strips and position on positioning plate 5.

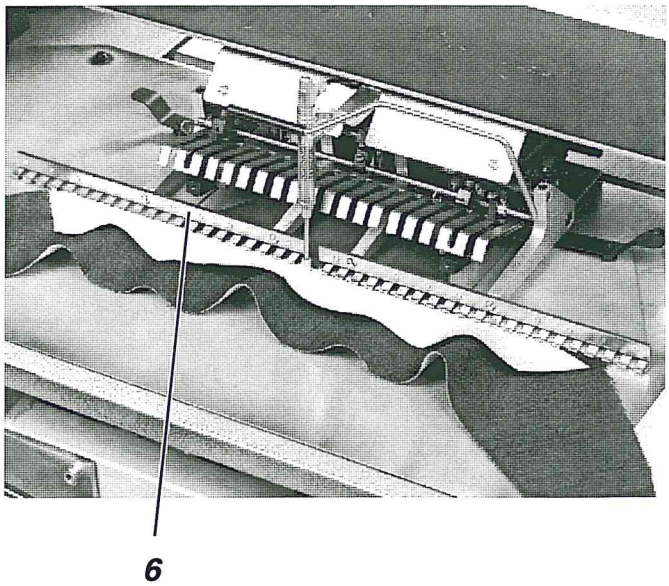
Caution Risk of Injury !

After the sewing sequence is turned on the material transport rail moves rapidly from its base position to its right end position.

Do not reach into the run area of the moving material transport rail.

- 3rd Pedal tap: Lower left clamping strip 6,
  rail transport on,
  sewing on,
  stacking of the finished piece.





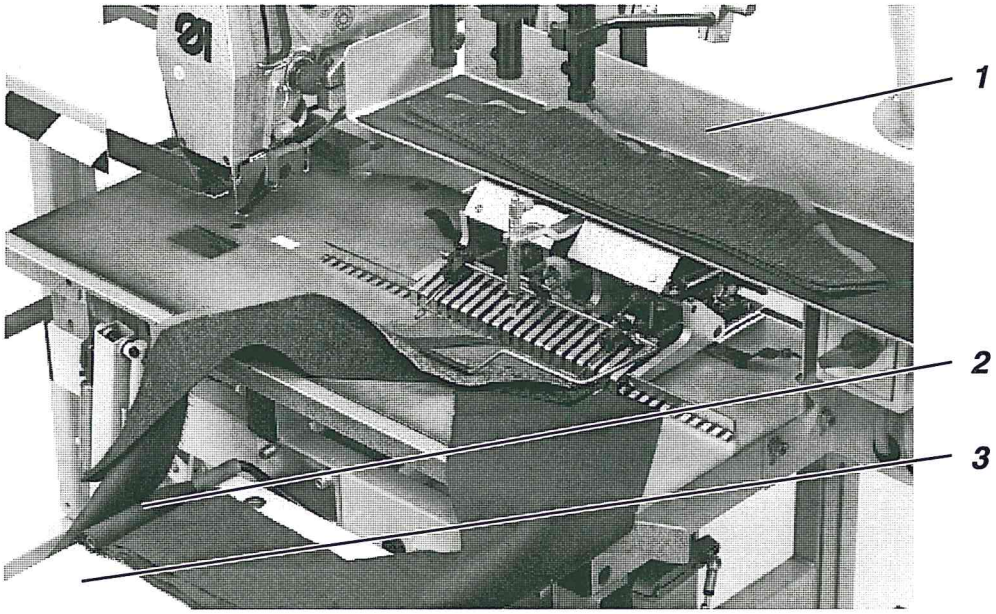
2.15 Storage Table, Bundle Clamp and Stacker

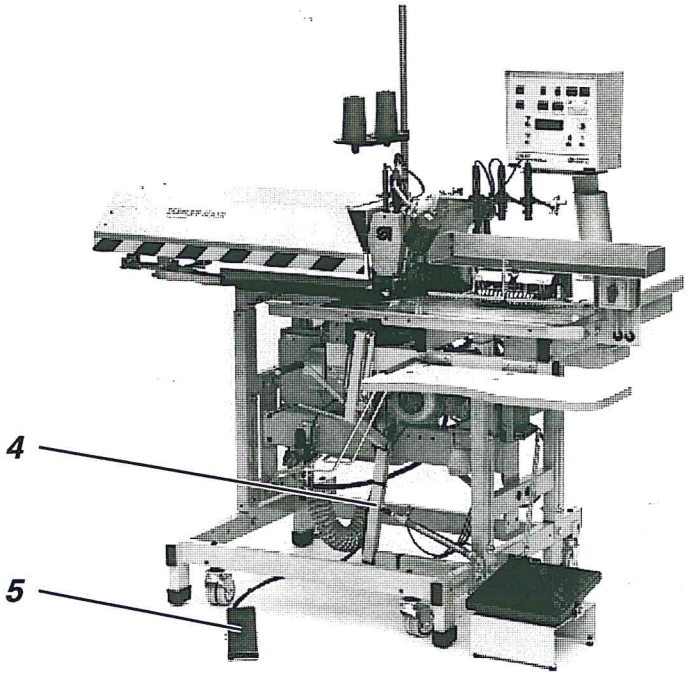
For easier handling of the material the sewing unit is equipped with the following devices:

- Storage 1 for storing the collars
- Make-up table 3 with bundle clamp 2 for storing facings or collar stays
- Remover 4 for gorge seams
- Stacker 6 for stacking the finished pieces for collar stays

Bundle Clamp

- Step on and hold down pedal 5.
  Bundle clamp 2 opens.
- Place a stack of facings under the bundle clamp 2.
- Release pedal 5.
  Bundle clamp 2 closes.
  The facings are clamped fast on make-up table 3.
  To remove from bundle clamp 2 step on pedal 5.



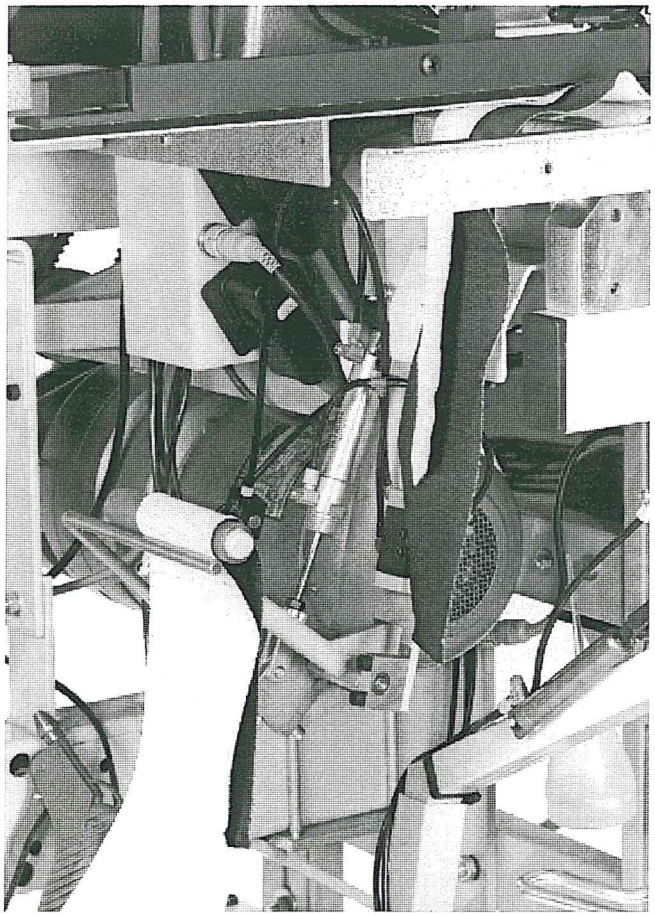


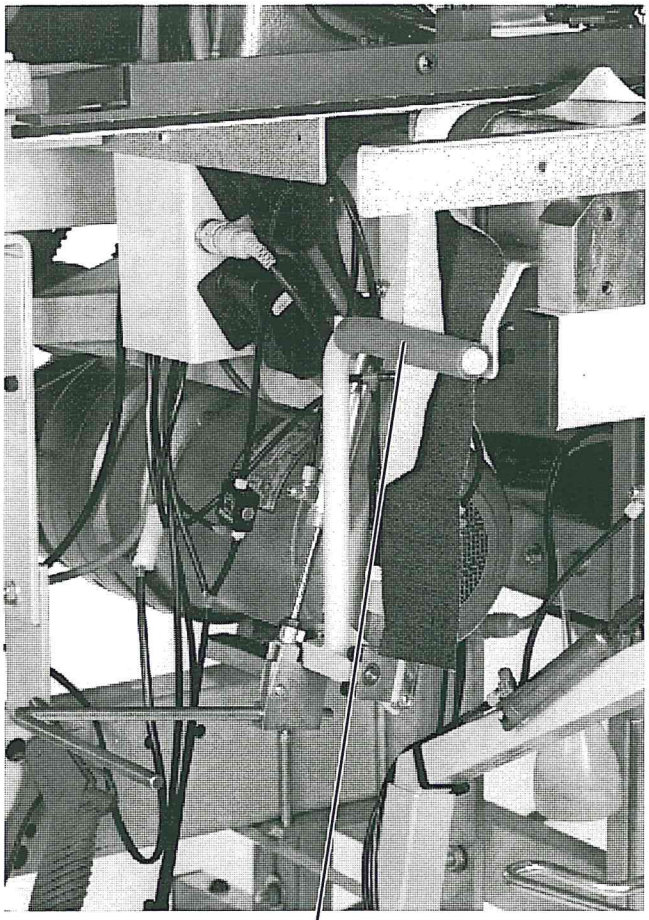
Stacker

Caution Risk of Injury !

Do not reach into the work area of the stacker 6 during the stacking process.

- Step on and hold down pedal 5.
  Stacker 6 opens.
- Remove stacked sewing pieces.
- Release pedal 5.
  Stacker 6 closes.





3. Maintenance

Caution Risk of Injury !

Turn off main switch.
Maintenance of the sewing unit may only occur when turned off.

3.1 Cleaning

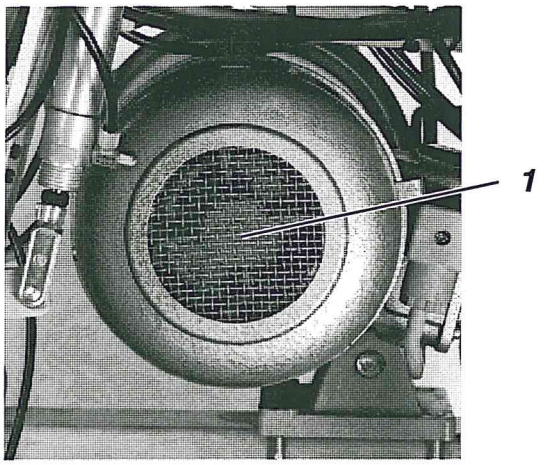
A clean sewing unit protects against malfunctions !

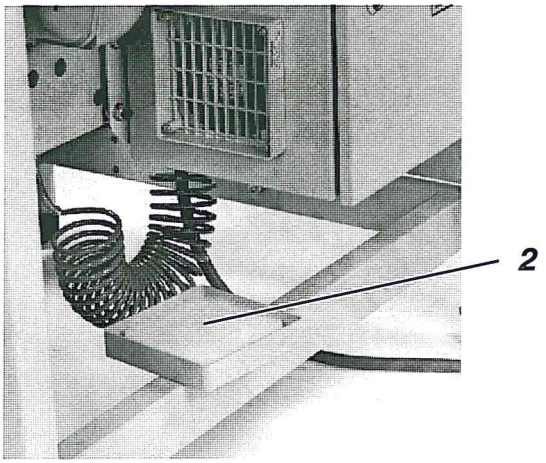
Daily Cleaning and Inspection:

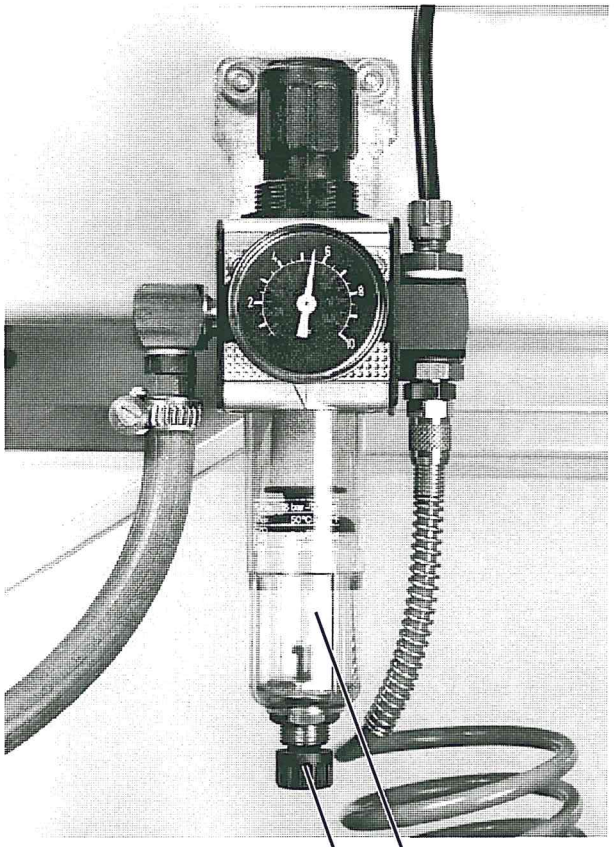
- Clean the hook area with the compressed air gun.
- Clean the motor ventilation sieve 1 with the compressed air gun.
- Clean the filter 2 of the step motor output.
- Check the water level in the pressure regulator.
  The water level should not rise to the filter insert.
  After turning in the drain screw 3 blow water out of the water seperator 4 under pressure.
  Dirt and condensation are removed through the filter insert. After a period of operation wash the dirty filter housing and insert with naphtha and then blow clean with the compressed air gun.

ATTENTION !

Do not use solvents for cleaning!
They will destroy the filter housing.

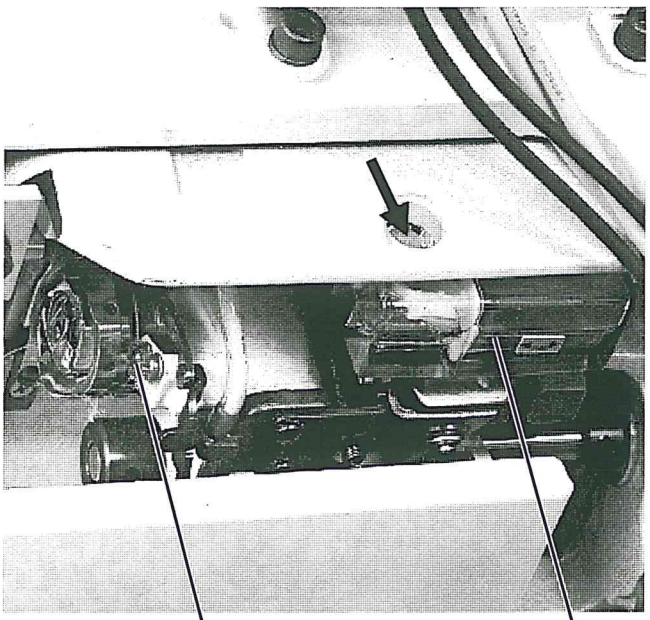


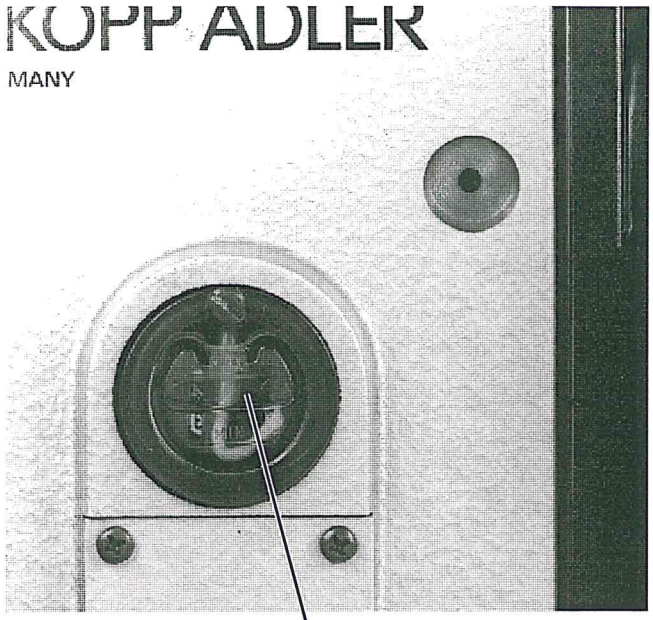




3.2 Lubrication

For lubrication of the sewing unit use only **ESSO SP-NK 10** lubricating oil.
SP-NK 10 is available at all **DÜRKOPP ADLER AG** sales offices.





Check the oil level in oil reservoir 2 for the hook lubrication

- Tilt up the machine head as per chapter 2.1.
- Fill the oil reservoir 2 to the "Max" mark with oil.
- The required oil flow is set at screw 1 at the factory.
  Increase or decrease the oil flow only in exceptional cases.

Check the oil level in oil reservoir 3 for the lubrication of the machine head

- The oil level in the reservoir 3 should not drop below the "Min" mark.
- If necessary fill with oil through the holes in the viewing glass up to the "Max" marking.

Lubricating the pneumatic elements

The pneumatic elements (e.g. cylinders, valves,...)are given permanent lubrication at the factory.
They are not supplied by the compressed air maintenance unit.

ATTENTION !

Use **no** oil to grease these parts.
If necessary, use only the cylinder grease found in the accessories pack.

DÜRKOPP ADLER AG

Operation and control elements 743-422

Selecting Sewing und Testing Programs

Selecting the Positioning Method

Setting the Stitch Length

Correcting Seam Beginning / Seam End
A, B, C, D: Fine adjustment for gorge seam
E, F: Fine adjustment for collar stay seam
Small value = displacement to the left
Large value = displacement to the right

Correcting the Seam Length for Pointed Cut
Switch Position "00" = no change
Switch Position "20" = maximum displacement

Setting Stitch Length for Stitch Condensation (LST), Setting the Number of Stitches for Stitch Condensation (NST)
Minimum stitch condensation number: 4 stitches

Setting the Bartack Length (LR), Setting the Number of Bartack Stitches (NR)

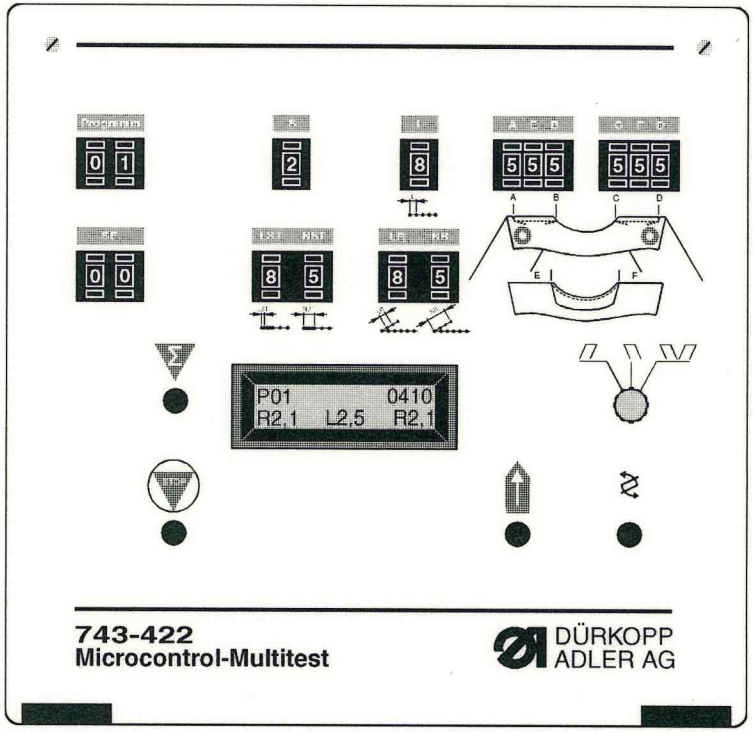
Setting the Counter
Re-setting the piece counter

Selecting the Positioning Point (only for Gorge Seam)
Positioning point left: right facings on upper collars
Positioning point right: left facings on upper collars
Automatic change of the positioning point:
Positioning points right / left automatically alternating

Activating the Selected Program, Stopping the Current Program

Transport Carriage Return
Transport carriage return to the left end position

Change Positioning Point
Manual change of the sequence for automatic change of the positioning point



Progr.	Function
P01	**Gorge Seam: Bartack / Bartack** Seam beginning with bartack Seam end with bartack
P02	**Gorge Seam: Bartack / Stitch Condensation** Left positioning point: Seam beginning with bartack Seam end with stitch condensation Right positioning point: Seam beginning with stitch condensation Seam end with bartack
P03	**Gorge Seam: Stitch Condensation / Stitch Condensation** Seam beginning with stitch condensation Seam end with stitch condensation
P04	**Collar Stay: Stitch Condensation / Stitch Condensation** Seam beginning with stitch condensation Seam end with stitch condensation

P00: Display of the program version
P55-P69: Setting and testing programs

Storing the Function Sequences:

Programming the Function Sequence

- Select the desired sewing program.
- Set the pre-selector switch on the control front panel appropriate to the desired work sequence.
- Start the sewing procedure, test the sewing result and, if necessary, correct the setting of the pre-selector switch.
- Set the number "**xx**" under which the work sequence is to be stored at the "**Program**" switch (allowable values: xx = 70 to xx = 99).
- Press the "**STOP**" key and hold down.
- Additionally press the "Σ" key.
  The work sequence is stored in memory.
- After successful storing in memory the display shows "****PROG****".
- Release the "**STOP**" and "Σ" keys.
- The display shows "**Pxx**". The sewing unit runs with the stored work sequence.

Selecting a Stored Work Sequence

- Set the number "**xx**" of the desired work sequence with the "**Program**" switch.
- Activate the desired work sequence "**xx**" by turning on the main switch.
  With the main switch turned on press the "**STOP**" key.
- The display shows "**Pxx**".
  The sewing unit is ready for sewing.

Displays for Operating Aids

P?	Invalid program selected.
743G03	Display of the program version.
SONDER	"S" switch in invalid setting
SP-F	"SF" switch in invalid setting
<----	Run transport carriage to the back
-X-	Needle thread break
H>>>>	Underthread spool empty

Displays for Malfunctions

E2	Fuse e2 in the transformer defective
STOP	STOP key defective
SM-ERR	Step motor fault
POS-ERR	Motor protection switch is switched off
<<<---	Transport fault, no material under the transport rail