DÜRKOPP ADLER AG

Manual, complete

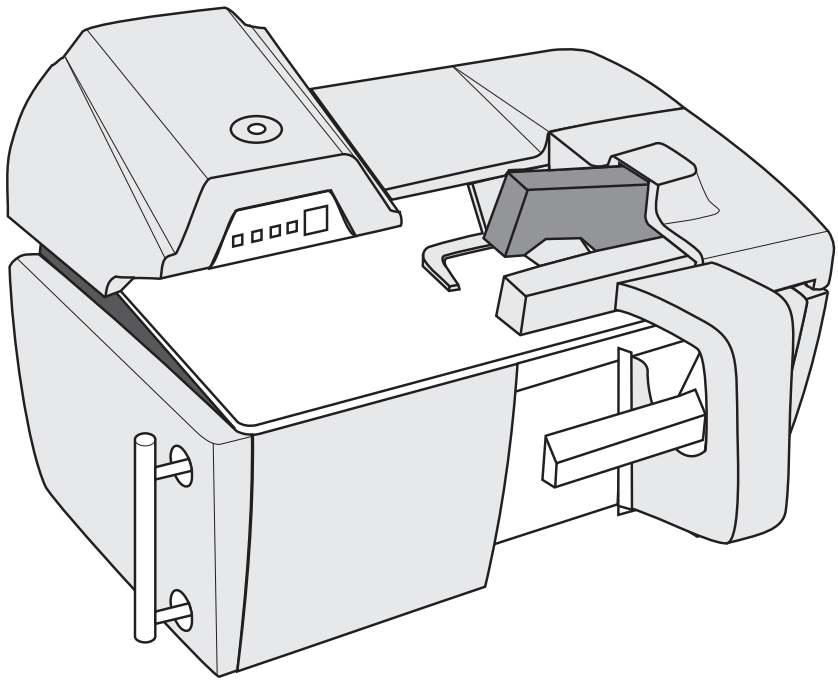
806

Micro-computer-controlled pocket setting unit

Instructions for operating 1

Installing instructions 2

Instructions for service 3



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806

Manual, complete

Summary

Instructions for operating
Installing instructions
Instructions for service

Interconnection diagram
9870 806020 B

Circuit-diagrams
9850 806001 SK

Pneumatic circuit plans
9770 806001
9770 806002

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Sprache: Englisch

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Part 1: Operating instructions Cl. 806

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1. Product description

1.1 Description of proper use

The **DÜRKOPP ADLER 806** sewing unit is used to sew light to medium-heavy sewing material.
In general such sewing material is made up of textile fibres or leather. This sewing material is used by the clothing industry.

In general only dry material may be used on this machine. The material must not contain any hard objects.

The seam will generally be sewn using covering twists, synthetic fabrics or cotton.

This sewing unit may only be installed and used in dry and clean rooms. If the sewing unit is used in rooms which are not dry and clean, additional measures may have to be agreed as necessary (see EN60204-31: 1999).

As a manufacturer of industrial sewing machines we assume that the personnel operating them will be at least semi-skilled, so that all standard operations and hazards, if any, are known.

1.2 Short description

The **DÜRKOPP ADLER 806** is a CNC-controlled sewing unit suitable for the automatic setting of pockets on shirts, blouses and trousers.

Stepping motors for transporting the sewing material

The technology of using step motors allows for short machine cycles and accurate needle guide.
It constributes to a quality of pockets that has as yet not been attainde at the same time ensuring a high level of productivity.

New generation of controls: "DAC" (Dürkopp Adler Control)

The graphical operator prompting is made through internationally intelligible symbols.

The various symbols are grouped together in the menu structure of the sewing and checking programmes.
The easy handling allows for short training periods.

MULTITEST, the comprehensive checking and monitoring system, is integrated into the DAC.

The micro computer is in charge of control tasks, it monitors the sewing process and indicates operating errors and malfunctions on the display.

Optional equipment

By freely combing the individual components subclass variants can be joined for different uses.

1.3 Technical data

Technical data		806-111100	806-121100	
Sewing field size [mm] (width x depth)		220 x 230	200 x 220	
Machine crest		Class 467	Class 271	
Needle system		134	134	
Needle size [Nm]		80 - 140	70 - 100	
Needle thread size [Nm]		12/3 (max.)	50/2 (max.)	
Max. number of stitches [1/min]			3800	4000
Stitch length [mm]		0,8 - 3,5	0,8 - 3	
Max. transfer plate speed	during sewing [m/min]	13,3	12	
	during transfer [m/min]	65	65	
Transfer path [mm]		610	610	
Operating pressure [bar]		6	6	
Air consumption [NL/cycle]		28	28	
Outer dimensions [mm] (width x depth x height)		2300 x 1750 x 1750 For despatch: 2000 x 1750 x 1600	2300 x 1750 x 1750 For despatch: 2000 x 1750 x 1600	
Weight [kg]		630	600	

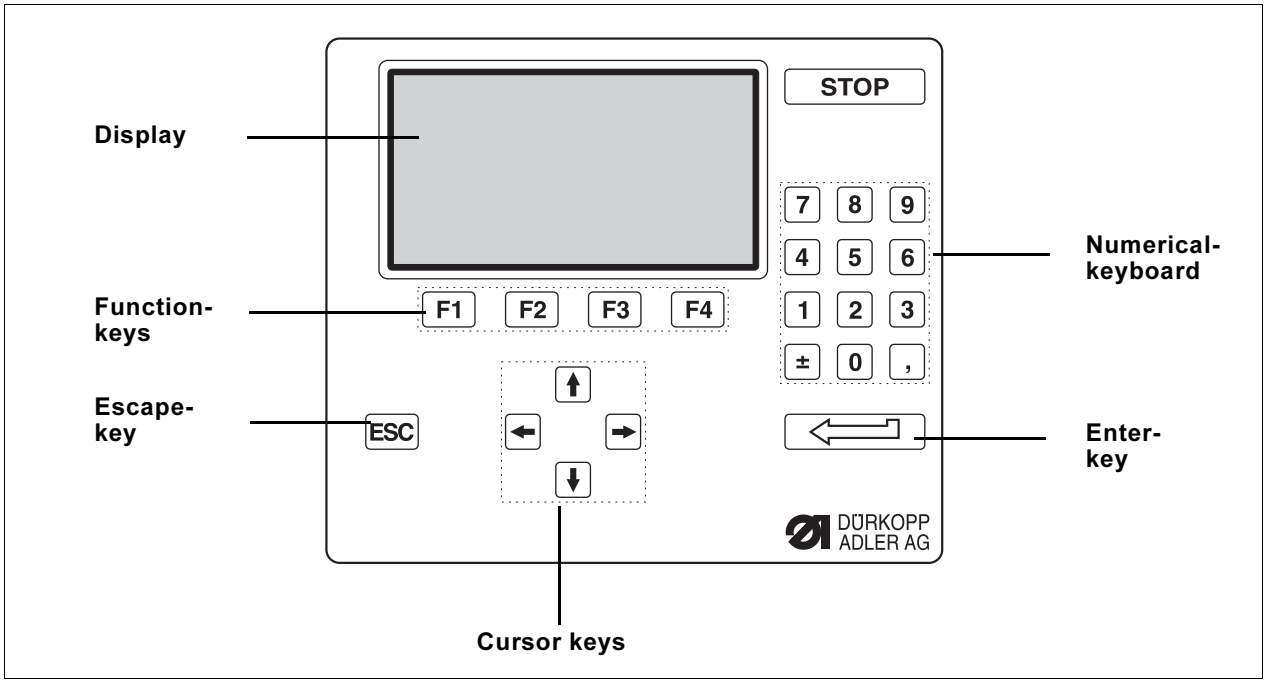
Noise level Lc:	Workstation related emission according to DIN 45635-48-B-1		
	LC =	**82 dB (A)**	**80 dB (A)**
	Number of stitches:	3.700 min $^{-1}$	4.000 min $^{-1}$
	Stitch length:	3,2 mm	2,3 mm
	Sewing material:	2-ply Jeans 509 g/m^2	G1 DIN 23328 2-ply
Measuring point to DIN 4895 Part 1:		x = 500 mm / y = 500 mm / z = 600 mm	

1.4 Optional equipment

Ref.-No.	Optional equipment	-111100	-121100
0806 427529	**Advance roller** To roll out short pieces an additional advance roller is required.	**X**	**X**
0805 402904	**Automatic vacuum field** For subclass 806-111 a vacuum field can be installed that works automatically. As soon as a sewing material piece is placed on the working area, the vacuum field under the sewing material piece is activated through a light barrier.	**X**	
0806 407594	**Hydraulic height adjustment** The hydraulic height adjustment allows for hydraulic adjustment of the working height of the sewing unit.	**X**	**X**

2. Operating

2.1 Control panel



Key/Key group	Function
Function keys	Calling up the function, shown above the respective function key Quitting checking programmes and parameter screens (F1).
Cursor keys	⇦, ⇨ : Selecting the symbol of the desired parameter ⇧, ⇩ : Switching on/off the parameter function, selecting the previous/next step of the parameter value, Activating the programme
Numerical keyboard	Entering parameter values. ± : Changing the sign of the parameter value
Escape key	Restoring the old parameter value.
Enter key	Switching on/off the selected parameter value. Calling up a sub-menu for a symbol. Quitting the setting of the selected parameter valiue. The parameter value set will be taken over.

1

2.2 Operator interface

2.2.1 Menu structure of the sewing and checking programmes

Only international symbols are used for the operator interface.

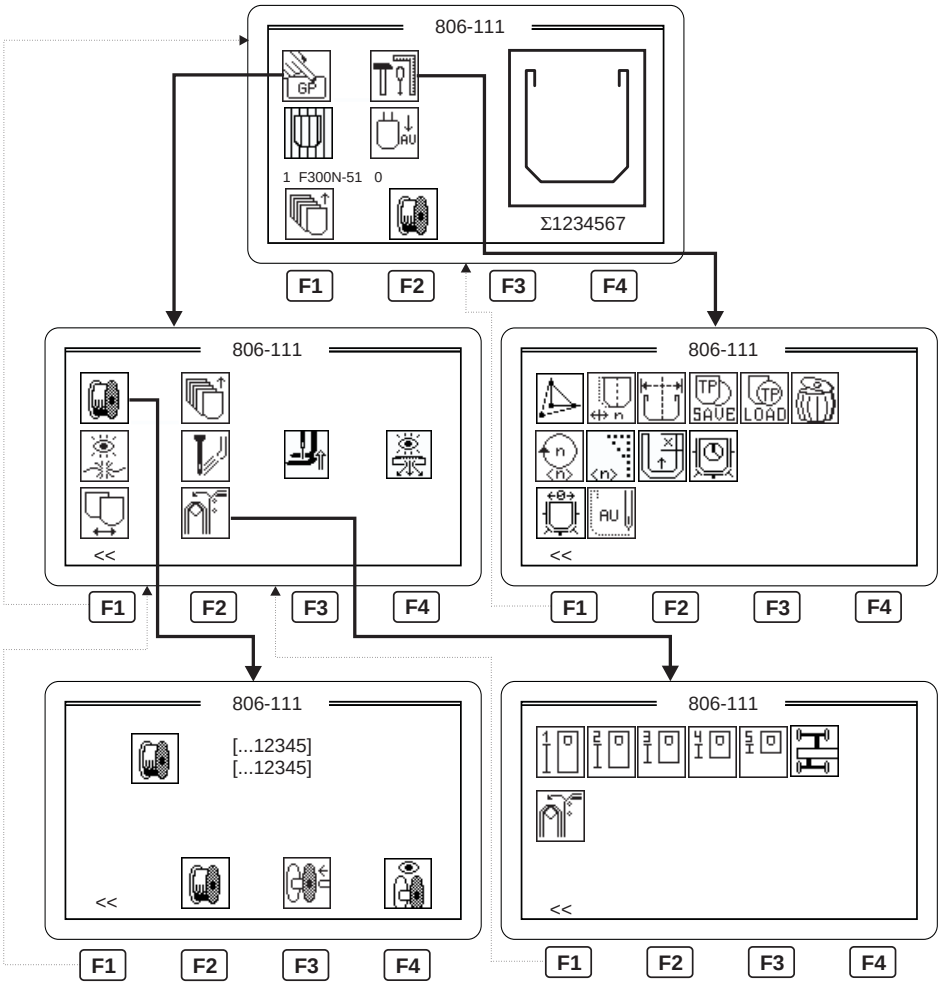
The individual parameters and the adjustment/checking programmes are compiled to constitute different groups.

Calling up the sewing programmes

- Turn on the main switch.
  The control will be initialized.
  The display will present the DÜRKOPP-ADLER-Logo with the version number of the programme.
- Press the key "**I**".
- Loading a pocket programme.
- The display message will pass to the main screen.

Out of the main screen you can reach further sub-menus (see the flowchart) by selecting certain symbols.

By pressing the key "**F1**" you can go from the sub-menus to the next upper menu.



2.2.2 Calling up adjustment menu

CAUTION !

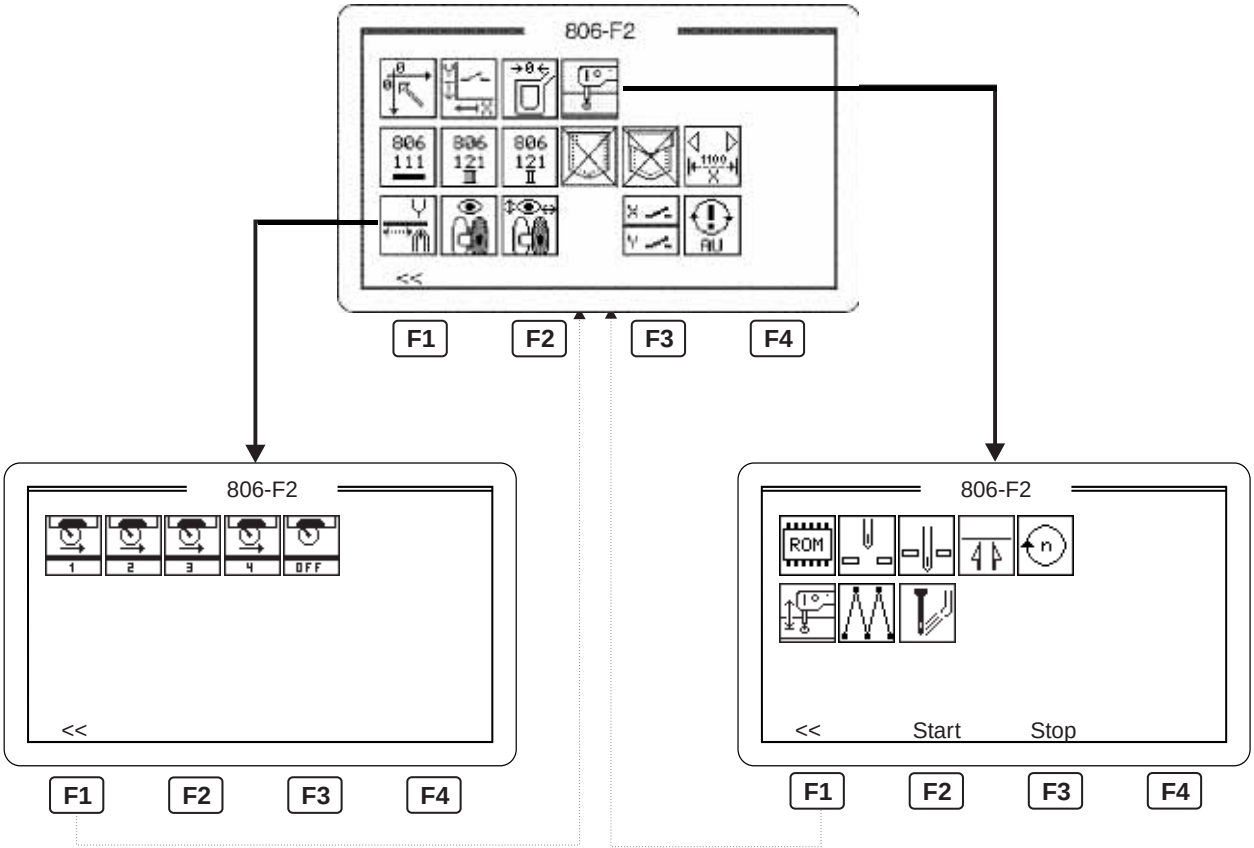
The adjustment options of this menu are intended exclusively for the service fitters.

– Turn on main switch.
  The control will be initialised.
  The display will present briefly the DÜRKOPP-ADLER-Logo.
– **During the display of the logo**, press the key F2.
– Press the key "I".
  The display will present the adjustment menu of the 806 after the basic setting travel.

Out of the main screen you can reach further sub-menus (see the flowchart) by selecting certain symbols.

By pressing the key "F1" you can go from the sub-menus to the next upper menu.

Only the symbols, compatible with the preset machine class, can be selected.



2.2.3 Selecting the functions

Within a menu, you can pass from one symbol to the other by pressing the arrow keys "⇦" and ⇨".

The selected symbol will be presented in inverted form.

The function of the selected symbol can be activted by the "RETURN" key.

If there is a symbol above the function keys "**F1**" to "**F4**", this symbol can be selected by the function key under the symbol.

2.2.4 Changing parameter values

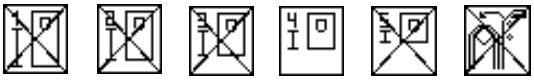
When changing parameter values, distinction must be made between several parameter groups :

1. Functions that can be switched on and off

 (on)  (off)

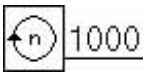
- The selected symbol is presented in inverted form (negative form).
- Press "**RETURN**" key for switching on/off the parameter function.

2. Parameters with different functions (e.g. roll out length)



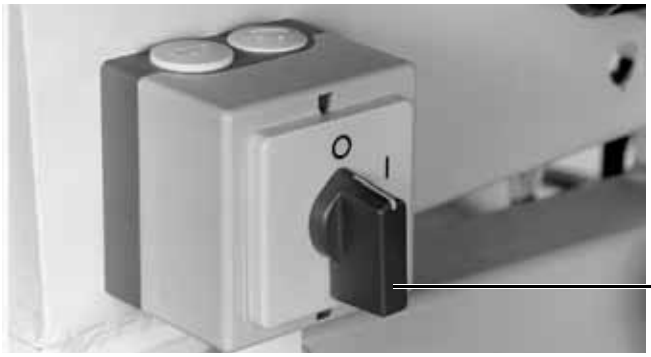
- The selected symbol is presented in inverted form (negative form).
- Select the desired functions of the parameter by the arrow keys.
- Press "**RETURN**" key.
  The desired function will be shown not crossed through. The other functions will be crossed through.

3. Parameters, the values of which are entered via the numerical keyboard. (e.g. entering the speed in the adjustment menu)



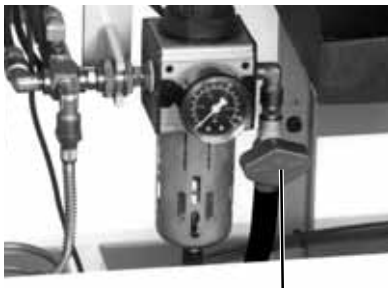
- The selected symbol will appear in the right bottom corner of the display, prompting to enter.
- Enter the desired parameter value by the numnerical keys
  CAUTION!
  The value must range between the preset limits.
  If the value entered is to low or too high, the lower or the higher limit will be displayed after presing the Enter key.
- If the parameter value is preceded by a sign, this can be changed by the key " **±** ".
- Press **RETURN** key.
  The new setting of the parameter value will be taken over.

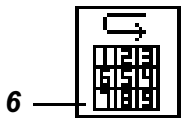
2.3 Turning the machine on



Caution - danger of injury

Do not reach for moving machine parts.

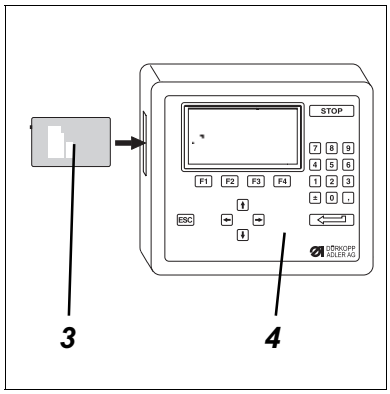




Turning on

- Insert the memory card 3 into the control unit 4 back to front.
- Open the stop valve 2.
- Turn the main switch 1 on.
  The lamp of the "I" key flashes.
- Press "I".
  The sewing unit does a reference run.
  The carriage moves to the light barrier.
  The coding on the transfer plate is read in and displayed on the screen.
- Select the "read in coding again" function (pos. 6) to read in the coding on the transfer plate again.
  Note:
  It is possible that the material covers the coding of the transfer plate

Available pocket programmes are loaded from the memory card and are indicated on the display :



- Select the desired pocket programme by pressing the cursor keys.
  The pocket programme selected appears on the display in reverse video mode.
- Press **RETURN**.

The screen will present after a short while the principal menu and the selected pocket style will be illustrated.
All pocket programmes available are loaded from the chip card and are indicated on the display.

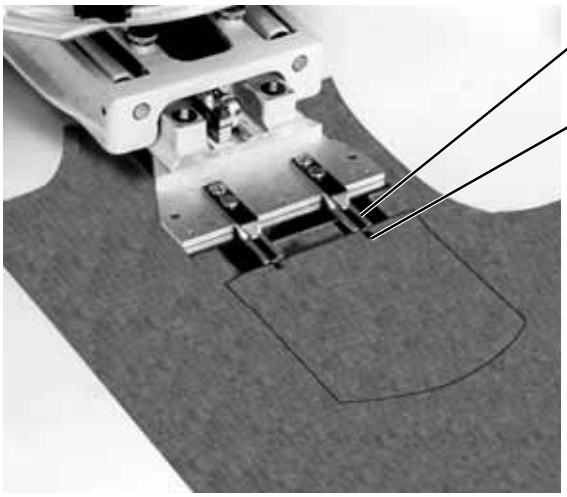
- Select the desired variant by pressing the cursor keys.
  The original programme is represented by the number "0".
- Press **RETURN**.
  The main menu appears on the screen and the selected pocket form is graphically displayed.

Changing the Battery of the Memory Card 3

Life of the memory card without a battery change: approx. 4 years

ATTENTION !

Programs saved on the memory card are lost when the battery is changed. Make a backup of the programs in the hard disk of your PC before changing the battery!

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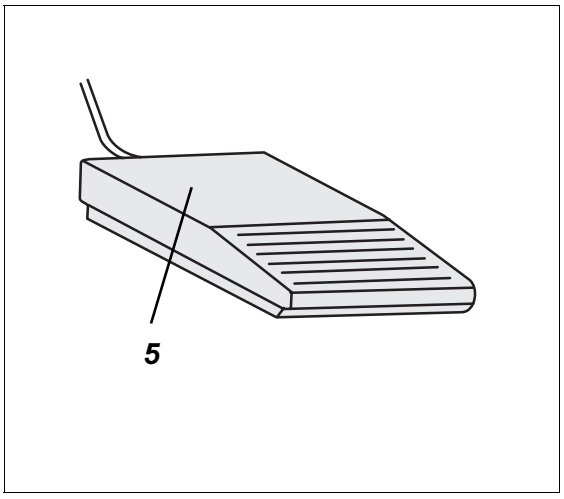
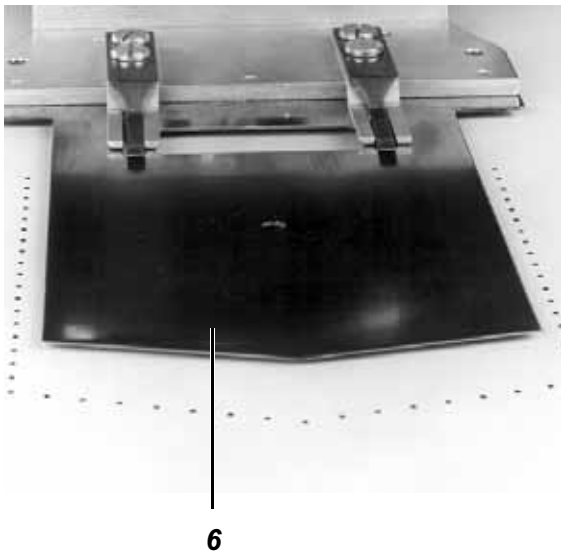

5


6

2.4 Loading the cuts

2.4.1 Loading the cuts parts without pre-alignment

Caution - danger of injury
Do not reach into the region of moving parts.

- Pull up the cut pocket parts under the clamps 2 to the catch 1.
- Align the pockets cuts to the centre of the centre slide 6.
- Align the basic piece.
- Fix basic piece.

Method 1

This method is used for joining "in accordance with the pattern".

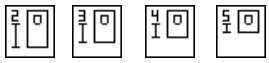
- Align the basic piece along the marks on the plate.
- Press the "**start**" key 4.
  The folding process is activated and the automatic run begins.

Method 2

This method is used for joining "in accordance with the pattern" as e.g. is shown in the picture on the upper left-hand side.

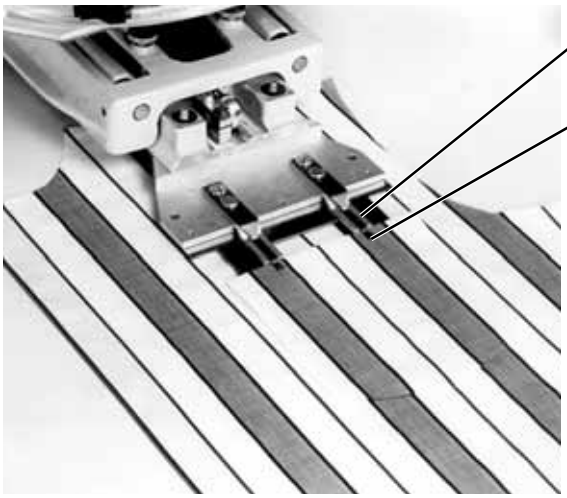
- Put the basic piece under the centre slider.
- Press key 3.
  The centre slider is lowered down to the "alignment position".
- Align the basic piece according to the pattern of the pocket.
- Press pedal switch 5.
- Press the "**start**" key 4.
  The folding process is activated and the automatic run begins.
- Select function "**stacker system**" .
  A menu appears allowing for the selection of the stacker system and the advance length.

- Select the desired stacker system by pressing the cursor keys:

Stacker system	Symbol
Stacking without roller advance (e.g. trousers)	
Stacking with advance length 1-4, for shirts or short pieces, depending on the stacker	
Switch off the stacker	
Switch on/off the advance roller (optional equipment) When rolling out with a supplementary advance roller, the latter can be engaged additionally.	

The advance roller is required for stacking short parts that cannot be seized by the roller-out.

The adjustment of the advance length is correct when the parts to be stacked are hanging down on both sides of the stacker to the same extent.

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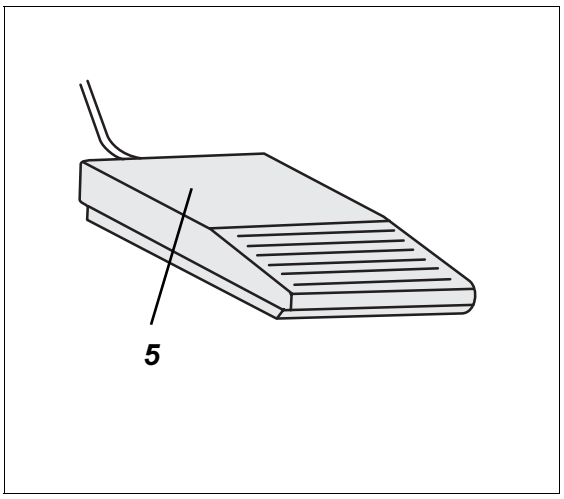
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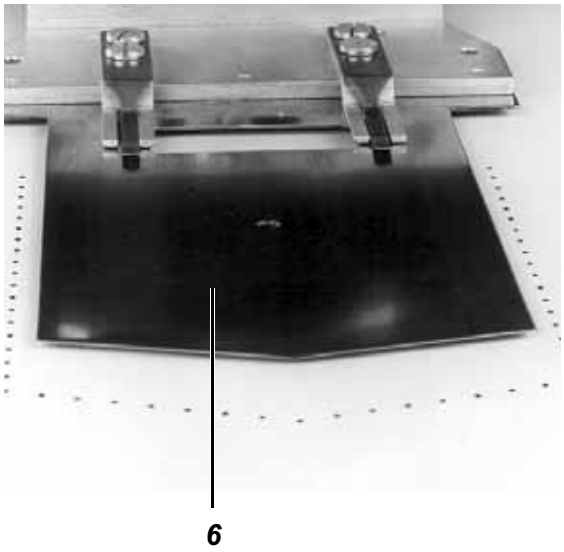
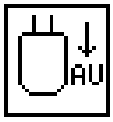

6

2.4.2 Loading cut parts with pre-alignment

The "pre-alignment" mode must be selected if the basic piece has to be aligned to the marks of the area of the upper vacuum field before loading the pocket cut.
In "pre-alignment" mode the centre slider is moved back before the basic piece is aligned, so that it no longer covers the marks.



- Select the "**Pre-align**" function
  to ensure that the centre slide is in the rear position when aligning the basic piece.
- Align the basic piece to the marks.
- Press pedal switch 5.
  The centre slide 6 advances.
  The vacuum field, if available, will be switched on.

Caution - danger of injury

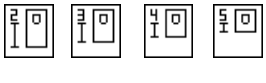
Make sure there is adequate clearance for the movement range of the centre slide.

- Pull up the pocket cuts under the clamps 2 to the catch 1.
- Align the pocket cuts to the centre of the centre slider 6.

If setting "in accordance with the pattern" is required as shown in the picture on the upper left-hand side:

- Press key 3.
  The centre slider is lowered to the "alignment position".
- Press pedal switch 5.
- Align the basic piece (now no longer fixed to the pattern of the pocket).
- Press pedal switch 5.
  The basic piece is fixed again.
- Press the "**start**" key 4.
  The folding process is activated.

- Select "**Stacker system**" function.
  A menu appears allowing for the selection of the stacker system and the advance length.
- Select the desired stacker system by pressing the cursor keys:

Stacker system	Symbol
Stacking without roller advance (e.g. for trousers)	
Stacking with advance length 1-4, for shirts or short pieces, depending on the stacker installed	
Switch off the stacker	
Switch on/off the advance roller (optional equipment) When rolling out with a supplementary advance roller, the latter can be engaged additionally. The advance roller is required for stacking short parts that cannot be seized by the roller-out.	

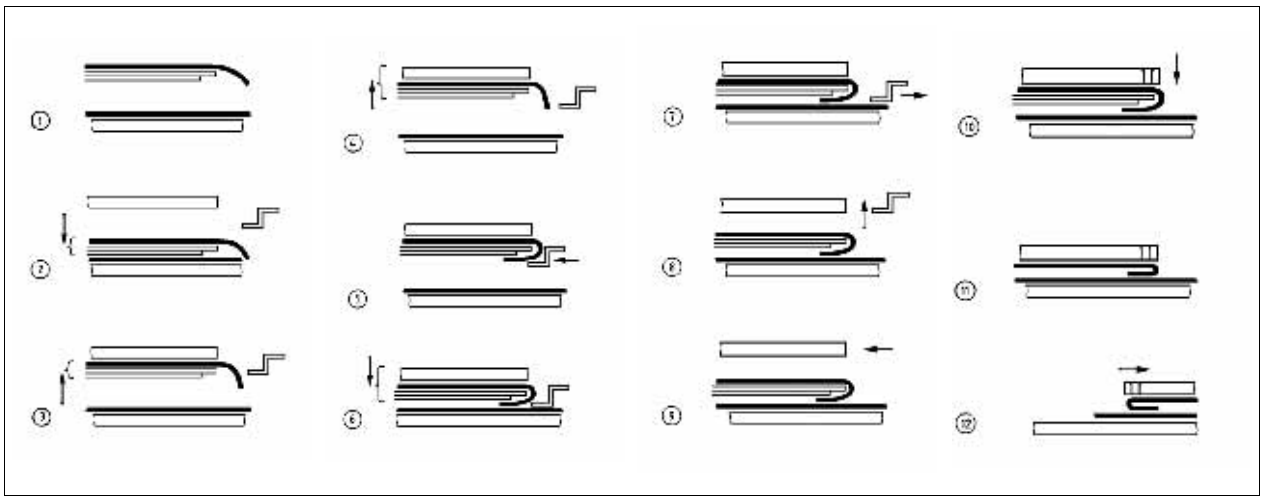
The roller length is adjusted best if the material to be stacked hangs down equally long from the sides of the stacker.

2.5 Automatic cycle

This description is based on the following conditions:

– A single seam programme is activated

2.5.1 Folding the pocket cut



(pre-requisite: folding process is activated)

– Vacuum fields in the table are activated (phase 1).
The basic piece is fixed.

– The outer frame moves forward and the centre slider is lowered (phase 2).

– The centre slider moves up and the vacuum field of the inner frame is activated (phase 3).
The vacuum field pulls the centre slider towards the inner frame.

– The inner frame is brought up into the folding position (phase 4).
The centre slider follows the movement of the inner frame by vacuum action.

– Side sliders, front sliders and corner sliders move forward (phase 5).
The pocket cut is folded around the centre slider. The sliders are operated in a sequence that depends on the pocket style.

– Outer frame and centre slider move down (phase 6).

– Compressed air is admitted to the hose in the insert.
The hose presses the folded part of the pocket cut against the centre slider.

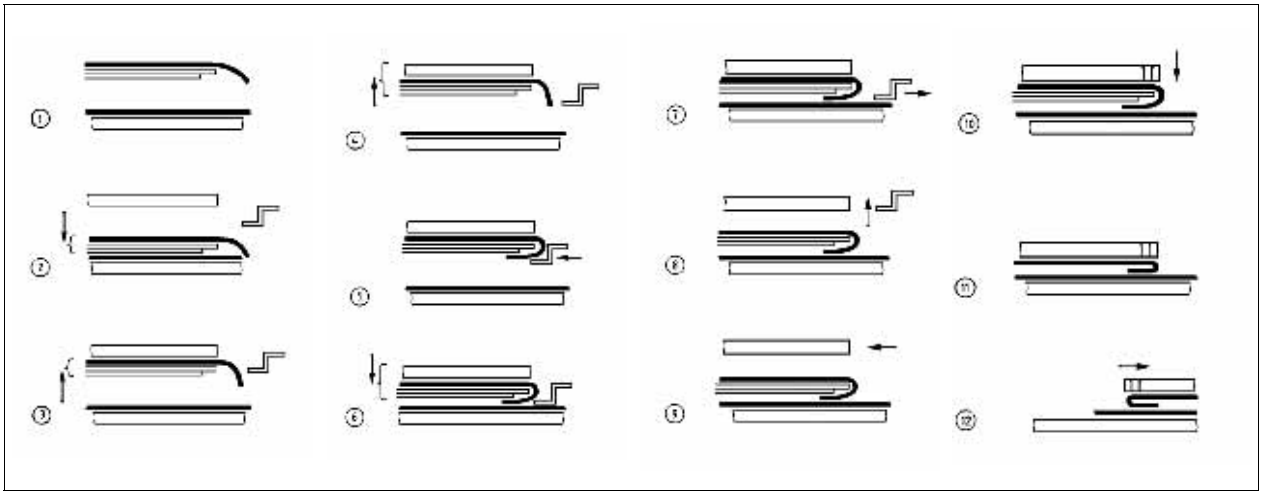
– The vacuum field of the inner frame is deactivated.

– Side sliders, front sliders and corner sliders move back (phase 7).

– The outer frame is lifted and the hose in the insert is vented (phase 8).
Now both pieces of material are held only by the centre slider, which is held against the table by the vacuum field.

– The outer frame moves backward.

2.5.2 Transporting the material to the sewing machine



- The transfer plate moves to the folding station (phase 9).
- The transfer plate is lowered (phase 10).
- The vacuum field in the table top is deactivated.
- The centre slider moves back (phase 11).
- The transfer plate moves to the sewing machine (phase 12).
- The centre slider moves forward.
  The folding station can be loaded again.

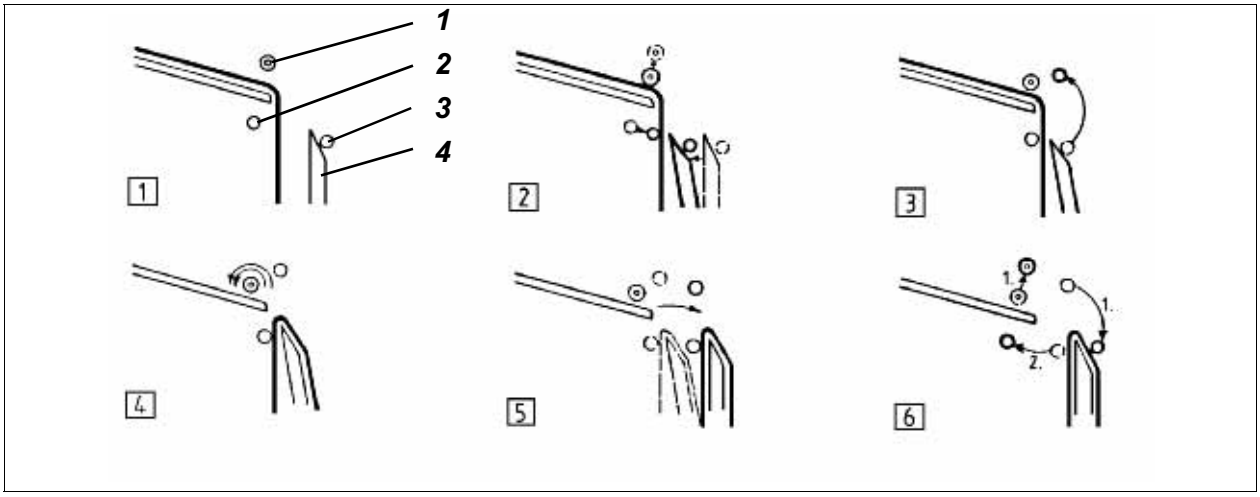
2.5.3 Sewing

- The sewing head is lowered.
- The seam is sewn.
- The thread trimmer is activated after the "seam end" signal appears.
- The sewing machine motors and carriages are deactivated.
- The transfer plate is lifted.
- The sewing head is lifted.

2.5.4 Stacking the material

The 806 provides various stacker systems to choose from:

- for stacking trousers without roller advance.
- for stacking shirts with roller advance.
- for stacking short pieces, if the stacker is fitted with an additional advance roller.



Functional run of the stacker in the mode without roller advance

– Before the stacker is activated the functional elements are positioned as follows (phase 1) :
Ejector roller 1 up
Outer bracket 3 closed
Inner bracket 2 open
Support 4 swung back.

Functional sequence

1. When the thread trimmer is activated:

– The ejector roller is lowered (phase 2).

– The support swings forward (phase 2).

– The inner bracket is closed (phase 2).
The sewing material is fixed.

– After a delay:
The outer bracket is opened (phase 3).

2. When the transfer plate is lifted:

– The ejector rollers turn fast (phase 4).
The material is flipped over the support.

– The support is swung back (phase 5).

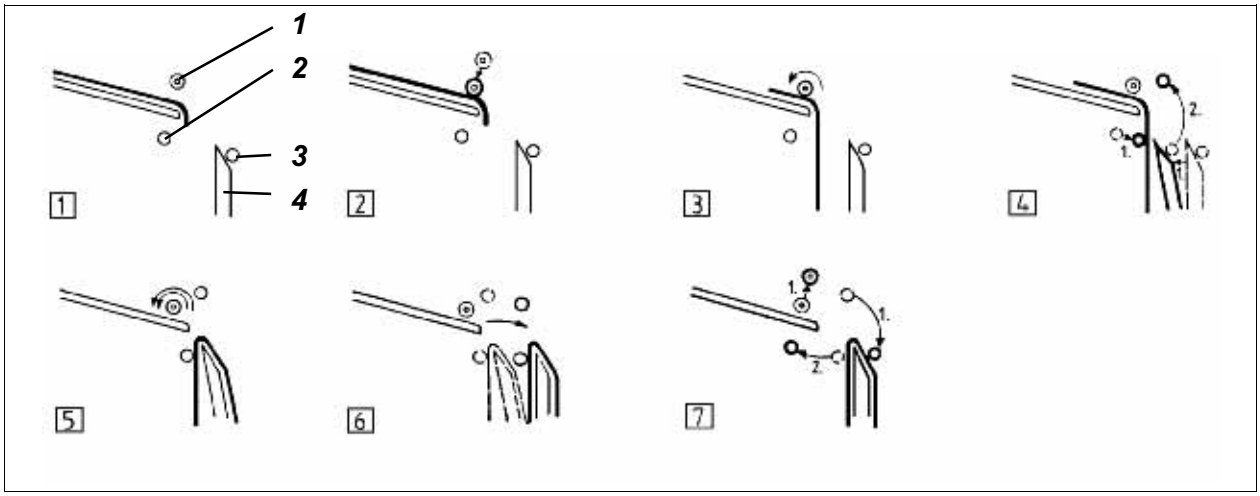
3. When the light barrier is cleared:

– The ejector roller is lifted (phase 6).

– The outer bracket is closed (phase 6).

– After a delay:
The inner bracket is opened (phase 6).

– The ejector roller stops turning.



Functional run of the stacker in the mode with roller advance

– Before the stacker is activated the functional elements are positioned as follows (phase 1) :
Ejector roller 1 up
Outer bracket 3 closed
Inner bracket 2 opened
Support 4 swung back.

Functional sequence

1. When the thread trimmer is activated:

– The ejector roller is lowered (phase 2).

2. When the transfer plate is lifted:

– The ejector rollers turn slowly (phase 4).
The lower part of the material falls between the inner bracket and the support.

3. When slow turning stops:

– The inner bracket is closed (phase 4).

– The support is swung forward (Phase 4).
The material is fixed.

4. When the inner bracket is closed:

– The outer bracket is opened (phase 4).

5. When the outer bracket is opened:

– The ejector rollers turn fast.
The material is flipped over the support (phase 5).

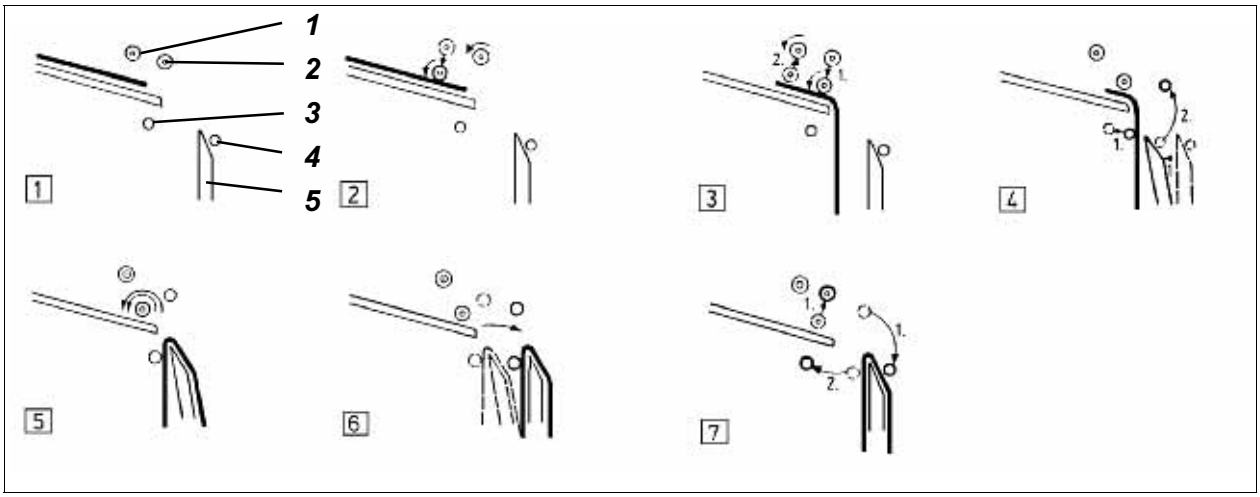
– The support is swung back (phase 6).

6. When the light barrier is cleared:

– The ejector roller is lifted (phase 7).

– The outer bracket is closed (phase 7).

– After a delay: (phase 7)
The inner bracket is opened.
The fast turning of the ejector rollers is stopped.



Functional run of the stacker in the mode with additional roller advance

– Before the stacker is activated the functional elements are positioned as follows (phase 1) :
Ejector rollers 1 and 2 up
Outer bracket 4 closed
Inner bracket 3 opened
Support 5 swung back.

Functional sequence

1. When the transfer plate is outside the sewing station area:

– The advance rollers and ejector rollers turn slowly (phase 2).

– The advance roller is lowered (phase 2).
The piece is rolled out.

2. When the light barrier is interrupted by the piece:

– After a delay:
The ejector rollers are lowered (phase 3).
The ejector rollers take over the piece from the advance roller and spread it between the inner bracket and the support.

3. When slow turning stops:

– The inner bracket is closed (phase 4).

– The support is swung forward (phase 4).

4. When the inner bracket is closed:

– The outer bracket is opened (phase 4).

5. When the outer bracket is opened:

– The ejector rollers turn fast.
The material is flipped over the support (phase 5).

– The support is swung back (phase 6).

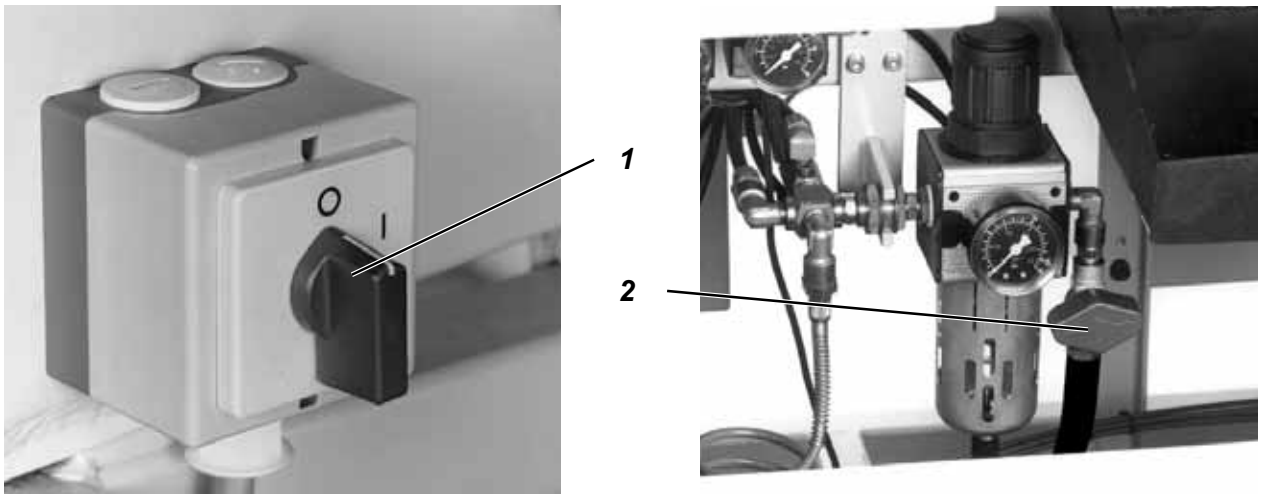
6. When the light barrier is cleared:

– The ejector roller is lifted (phase 7).

– The outer bracket is closed (phase 7).

– After a delay: (phase 7)
The inner bracket is opened.
The fast turning of ejector rollers is stopped.

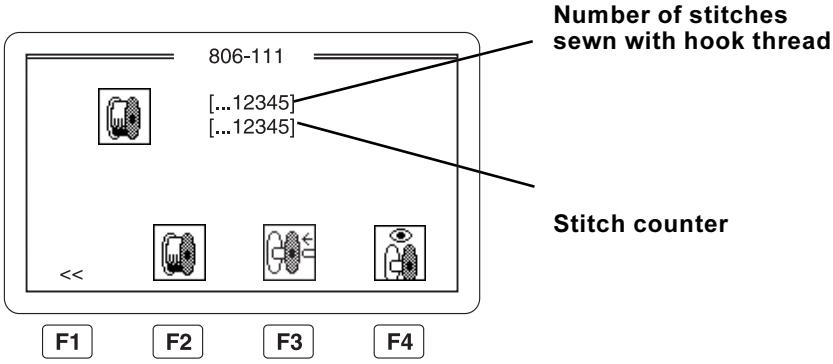
2.6 Turn the machine off.



The machine must be in initial position.

– Turn the main switch 1 off.
  The cylinders of the folding station are depressurized, thereby triggering the following functions:
  The outer frame is lowered.
  The outer frame is mechanically locked in its rear position.
  The centre slider is lowered.
  The sewing head is mechanically locked in its upper position.
– Close the shut-off valve 2.

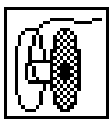
2.7 Bobbin change menu



– Call up the function "**Bobbin change menu**" in the principal menu.
  The bobbin change menu will appear.
  The inside bracket will be opened (only 806-121).
  The transfer plate will travel sideways (only 806-111).

2.7.1 Bobbin change

– Change the bobbin (see chapter 6.1.3 for the sub-class 806-121 and the chapter 6.2.3 for the sub-class 806-111).



Select the function "**Close bobbin change** " (key **F3**).
The stitch counter will be reset to 0.
Note:
When the bobbin change menu is closed by the key **F1** , the stitch counter will be reset to 0 when the figure shown by the counter is higher than the maximum number of stitches that can be sewn with the hook thread.

2.7.2 Switching on/off the remnant thread monitor

The remnant thread monitor can be switched on only in the sub-class 806-121if the remnant thread monitor is available and released in the setting menu.

- Select the function "**Remnant thread monitor** ".
- The remnant thread monitor will be switcheds on/off.

2.7.3 Bobbin change at the hook thread end

When the stitch counter or the remnant thread monitor recognises that the hook thread quantity is no longer sufficient for sewing a further pocket, following functions will be released :

- The key "**I**" will be blinking.
- The start key will be locked.
- The actual sewing process will be stopped.
  The bobbin change menu will appear.
- Press the key "**O**".
  The machine will travel into position "Safe motor stop ".

This completes the requirements for the bobbin change.

Procedure sequence

- Change the bobbin (see the chapter 6.1.3 for806-121 and. 6.2.3 for 806-111).
- Press the key "**F3**".
  The stitch counter will be reset to 0.

2.7.4 Quitt bobbin change menu

The bobbin change menu can be closed as follows:

- Press the key "**F1**".
  The change to the menu to be called up will take place.
  The stitch counter will retain ist value.
  The stitch couter will be reset to 0 if the value of the stitch counter is higher than the entered hook thread capacity.
- Operate the key "**F3**".
  The change to the menu to be called up will take place

The stitch counter will be reset to 0.

It will be impossible to quitt the menu under following condsitions.

- Safe Stop is active.
  The display shows the symbol "**Safe Stop active** ".
  For returning to the menu to be called up press the key "**I**".
- When the value of the stitch counter is higher than the hook thread capacity.
  For returning to the menu to be called up
  - Press the key "**F3**".
    The stitch counbter will be reset.
  or
  the hook thread capacity will be increased.

- Whedn the hook flap is opened (only 806-111).
  The display will show the symbol "**Hook flap opened** "
  For returning to the menu to be called up, close the hook flap.

2.7.5 Hook thread capacity

The hook thread capacity can bde entered only if the remnant thread monitor has been switched off.

- Select the function "**Hook thread capacity**".
- Enter the maximum number of stitchdes.
  The value must range between the number of stitches requirted for a pocket and 90000 stitches.
- Press **RETURN** key.

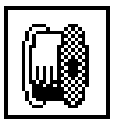
2.7.6 Determining the maximum number of stitches for the hook thread

The number of stitches that can be sewn with the thread of a full bobbin depends mainly on the following factors:

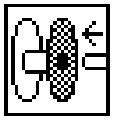
- Stitch lengh
- Thread size
- Fabric thickness
- Thread tension during the winding process

Procedure sequence

- Select the function "**Bobbin change menu**".
- Press the key "**O**".
- Wait until the lamp "**Safe stop** " lights up.
  The machine is now in the position "Safe motor stop ".
- Remove the old bobbin.
- Insert the full bobbin.
- Select the function "**Hook thread capacity**".



- Enter the estimated capacity.
- Press **RETURN** key.
- Press the key "**I**".
- Select the function "**Close bobbin change** " (key **F3**).

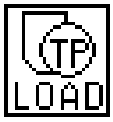


- Proceed with the automatic sewing cycle until the control reports that the bobbin is empty.
  The bobbin change menu will appear.
- Remove the bobbin.
- Estimate again the remaining number of stitches.
- Replace the bobbin.
- Select the function "**Hook thread capacity** ".
  Increase the value entered for the number of stitches of the hook thread by the estimated remnant number of stitches.

- Quitt the bobbin change menu by the key "**F1**".
  The stitch counter will not be reset.
- Repeat the process until the hook bobbin is empty.

3. Changing the sewing parameters

3.1 Changing the variants



A variety of pocket programmes can be loaded for every style kit.

- Select function "**Enter pocket programme**".
- Select the desired pocket programme by pressing the cursor keys.
  The individual pocket programme selected appears on the display in reverse video mode.
- Press **RETURN**.
  All available variants of the pocket programme selected are displayed from the chip card.
- Select the desired pocket programme by pressing the arrow keys.
  The original programme is represented by the number "0".
- Press **RETURN**.
  An hour-glass is indicated on the display during loading of the pocket programme.
  The main menu appears on the screen and the selected pocket form is graphically displayed.

Note:

Only the programmes with the ending "sew" may be loaded

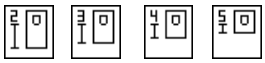
3.2 Selecting the roll-out lengths

To stack the material the roller advance length must be set at a value appropriate to the material. The shorter the distance between the sewn-on pocket and the lower end of the material, the greater the advance length must be.

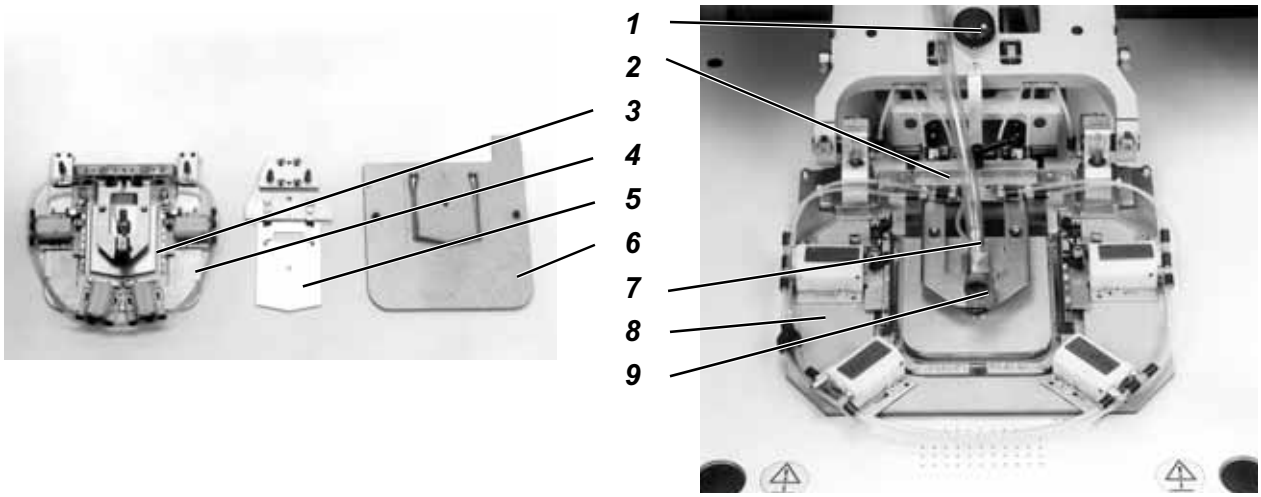
To stack material where the distance between the pocket and the lower end of the material is particularly short (short pieces), a stacker with an additional advance roller is required.The sewing unit detects automatically whther it is fitted with an additional advance roller

Sequence of entries

- Select "**stacker system**" function.
  A menu is displayed allowing you to choose the stacker system and the advance length.
- Select the desired stacker system by pressing the cursor keys:

Stacker system	Symbol
Stacking without roller advance (e.g. trousers)	
Stacking with advance length 1-4, depending on the stacker installed, for shirts and short pieces	
Switch off the stacker	
Switching on/off the advance roller (optional equipment) When rolling out with a supplementary advance roller, the latter can be engaged additionally. The advance roller is required for stacking short parts that cannot be seized by the roller The advance length is optimally adjusted if an equal length of the material to be stacked hangs down at each side of the stacker.	

3.3 Changing the style

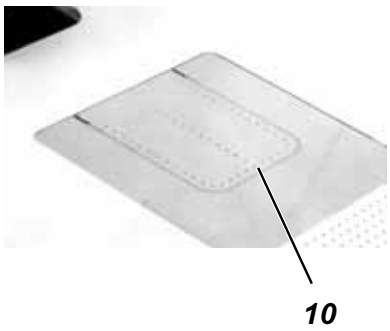


The style kit consists of the following components:

- Outer frame 4 with inner frame 3
- Centre slider 5
- Transfer plate 6
- Hose insert 10 (only 806-121)

Selecting the "style change".

- Select "**style change**" function.
  The outer frame moves forward and down.
  The centre slider moves down.
  The transfer plate moves down.
  The outer frame and the centre slider are released.



Removing the old folding kit.

- Remove the vacuum hose 7 from the connection piece of the inner frame support.
- Disconnect the coupling bar 2.
- Remove the outer frame 8 and the centre slider.
- only 806-121:
  Remove the hose insert 10.
  To do this press the hand valve and disconnect the quick coupling.

Fitting the new folding kit.

- only 806-121:
  Fit the hose insert.
- Fit the centre slider.
- Fit the outer frame.
- Connect the coupling bar.
- Connect the vacuum hose to the connection piece of the inner frame support.
- Change transfer plates

If necessary, change the position of the two dials

- Turn the dials 1 and 9 into the positions as indicated on the adhesive labels of the transfer plate.

Moving the parts of the style kit into position "0"

– Press the "**F1**" key.
  The style-kit parts are moved into position "0".
  The outer frame moves up.
  The centre slider moves up.
  The transfer plate moves up.
– The transfer plate is moved to the light barrier.
  The coding on the transfer plate is read in and displayed on the screen.

– Select the "**accept coding**" function to continue with the coding which has been read in.
– Select the "**read in coding again**" function to read in the coding on the transfer plate again.

Selecting the pocket variant

All available pocket programmes are loaded from the chip card and are indicated on the display:

– Select the desired pocket programme by pressing the cursor keys.
  The individual pocket programme selected appears on the display in reverse video mode.
– Press **RETURN**.
  All available variants of the selected pocket programme are loaded from the chip card and displayed.
– Select the desired variant by pressing the cursor keys.
  The original programme is represented by the number "0".
– Press **RETURN**.

The screen will present an hour glass while the pocket is being loaded

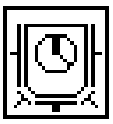
The main menu appears on the screen and the selected pocket style is graphically displayed.

3.4 Setting the folding times

The function "**Folding times**" permits to set the speed of the slides of the folding station for the folding process. Thus it is possible to adapt the folding speed to the different types of material.

Material	Folding time value
Light weight material	1
Medium weight material	2
Heavy weight material	3

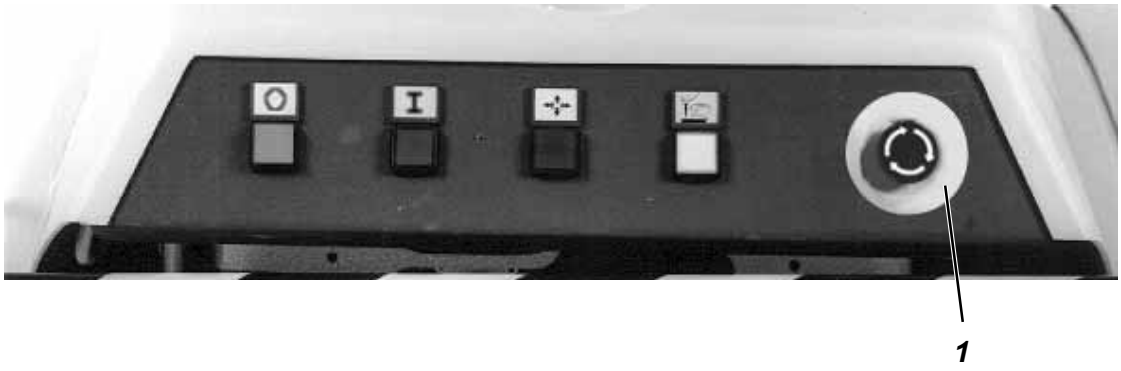
Procedure sequence



– Select the function "**Folding times**" .
– Enter by the numerical keys the value for the material involved.
– Press"**RETURN**".

4. Miscellaneous processes

4.1 Interrupting the run by pressing the "O" key



By pressing the "**O**" key the folding and sewing processes as well as the motion of the transfer carriages can be interrupted.

– Press the "**O**" key.
  - All motors are immediately braked.
  - The air pressure cylinders are depressurized. When the sewing head is in the upper position, it is mechanically locked.
  - The "**secure halt**" lamp lights up.
– Work on the machine.
– Press the "**I**" key.
  The automatic run is resumed from the point at which it was interrupted.

4.2 Emergency stop

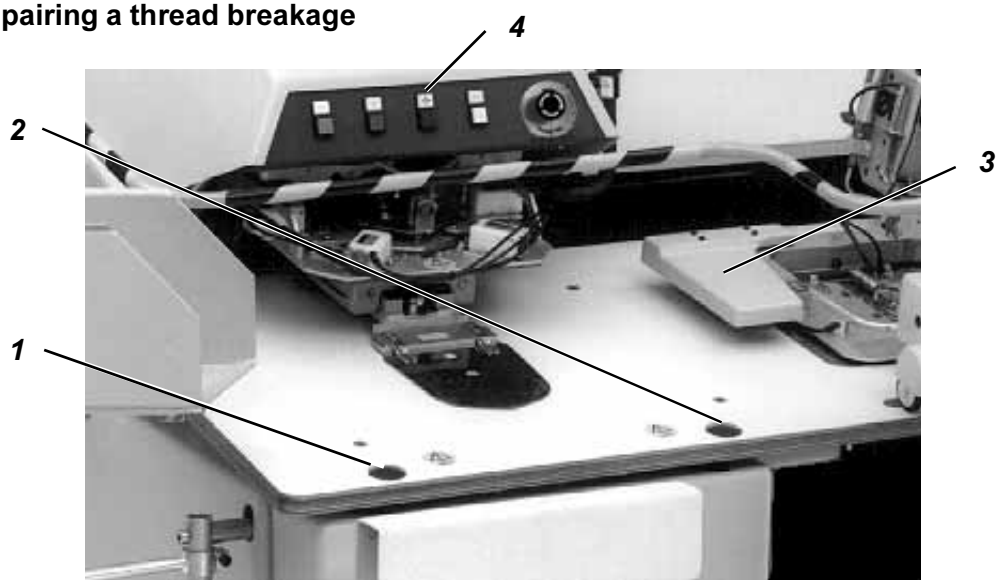
In emergencies which are dangerous for personnel or the machine itself, it can be turned off with the emergency-off key as follows :

– Press the emergency-off key 1.
  - All motors are immediately braked.
  - The air pressure cylinders are depressurized
  - The sewing head will move into ist upper position and will be stopped there automatically
  - When the sewing head is in the upper position, it is mechanically locked.
  - The electrical system is switched off, only the operating panel remaining switched on.
  - The display will present the message "**EMERGENCY STOP**"
– An emergency stop is also triggered if safety switch 3 (see page 28) is pushed to the right.
  "**TRANSFER STOP**" appears in the display.Released will be the same processes as those for the emergency stop

Re-starting after emergency stop

– Turn the main switch 1 to the "O" position.
  Rectify any fault which has occurred.
  If the emergency stop was triggered by the safety switch, push this to the left.
– Turn the emergency stop key a quarter-turn anti-clockwise.
– Turn the main switch 1 to the "1" position.
  The sewing machine is once again ready for operation.

4.3 Repairing a thread breakage



If the electronic thread monitor detects a thread breakage during sewing, the following functions are triggered:

- The thread trimmer is turned on.
- The head of the sewing machine is lifted.
- The "I" key flashes.

Caution danger of injuries !

For threading, the machine must stand in the position "Safe Stop"

- Press "**0**" key.
  Safe motor stop will be engaged.
- Pass the thread as described for the respective machine head.
  (see chapter 6.1.1 for 806-121 and chapter 6.2.1 for 806-111)
- Press "I" key

Continuing to sew the sewn-on piece

- Press key 1
  The machine head will be lowered.
- By means of the keys 1 and 2 move the material to the point where the sewing process is to be resumed.
  Key 1: For shifting the material in the direction opposite to the sewing direction.
  Key 2: For shifting the material in the sewing direction
- Press "I" key
  The sewing process will be continued.

Removing the sewn-on piece

- Press key 4
  The transfer plate will be lifted
  The sewing unit will move into ist basic position
- Remove the sewn-on piece by hand
- Press "I" key
  The machine is again in ist basic position and is ready to sew.

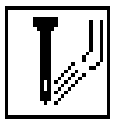
4.4 Removing the bundle from the stacker

Operating sequence

- Select "**Remove bundle**" function.
  The inner bracket is opened.
- Remove the bundle.
- Select the function "**Remove bundle"**
  The inner bracket is closed.

Note
The inner bracket is also put automatically into basis position in the case of the nearest.

4.5 Turning the needle cooler on or off

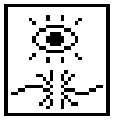


Procedure sequence

- Select function "**needle cooling**" .
- The needle cooling can be turned on or off by pressing the cursor keys.

Note
Switch the needle colling on and off after the machine has been in the "Safe Stop" position

4.6 Turning the thread monitor on or off



Procedure sequence

- Select function "**thread monitor**" .
- The needle thread monitor can be turned on or off by pressing the cursor keys.

4.7 Piece counter

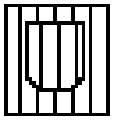
The piece counter counts the pockets sewn. The number of pieces sewn is indicated on the display above the F4 key, e.g. Σ 0001234

Resetting the piece counter

- Press the "**F4**" key.
  The piece counter is reset to zero.

4.8 Turning the folding checker on or off

If the folding checker is turned on it stops the automatic cycle after folding the cut pockets. This serves the purpose of checking the folding process.
The automatic cycle can be continued by pressing the "**start**" key.



Operating sequence

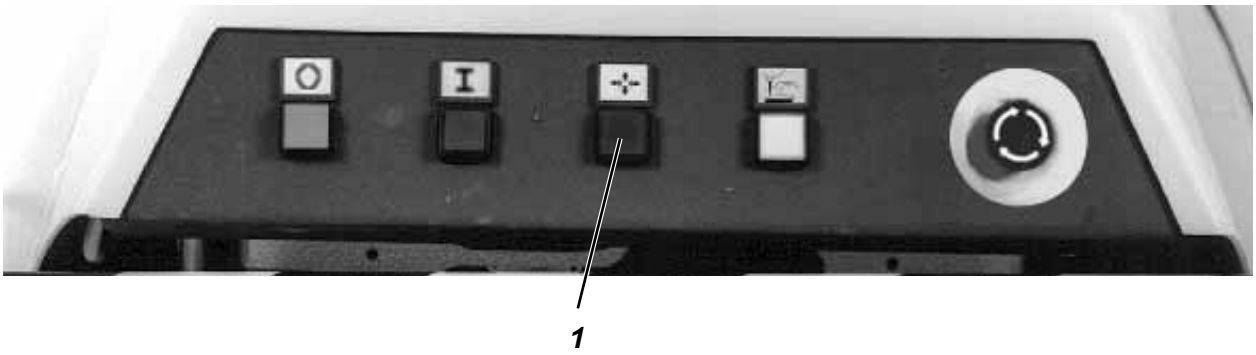
- Select function "**folding checker**" .
- The folding checker can be turned on or off by pressing the cursor keys.

4.9 Programme information

- After the loading of the pocket programme the display indicates.:

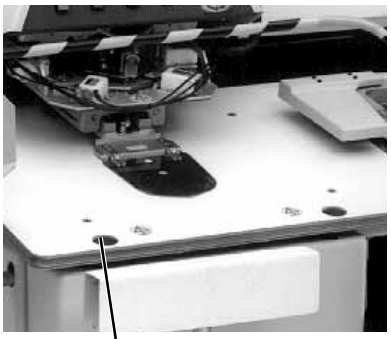
Code	**Name**	**Variant**
1	Fxxxxxx	11

4.10 Repeat function



1

The "**repeat**" key 1 serves to interrupt a current folding, transfer or sewing process.



2

Operating sequence when folding

– Press the "**repeat**" key 1.
  The folding process is interrupted.
  The folding station moves back.
– Re-align the basic piece and the pocket cut.
– Press the "**start**" key 2.
  The automatic run re-starts.

Operating sequence during transfer process or sewing

– Press the "**repeat**" key 1.

  If the next folding process has not yet been started
  - the current transfer or sewing processes are abandoned;
  - the sewing machine moves into the starting position.

  If the next folding process has already been started and the "**I**" key is not flashing
  - the folding process is abandoned.
  - the transfer or sewing processes continue.
  - the sewing process will be stopped if the key 1 "**Repeat"** is pressed once again

–

  If a further folding process has already been started and the "**I**" key is flashing (e.g. when the thread has broken or the looper thread has run out),
  - the sewing process is abandoned.

4.11 Switching on/off the lift position

By means of the function "**Switching on/off the lift position**" it is possible to switch on/off all the lift functions of the pocket programme.

Procedure sequence

– Select the function "**Switching on(/off the lift position** ".
– Press "**RETURN**" key.
  The lift position functions of the pocket programme will be switched on/off.

4.12 Switching on/off the automatic vacuum field

If the sewing unit is fitted with an automatic vacuum field (optiomnal equipment), the function can be switched on/off by the respective symbol.

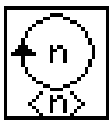
When the automatic vacuum field is switched on, the vacuum, serving to fix the pocket, will be switched on automatically if the pocket, when loading, interrupts the light barrier of the automatic vacuum field.

It will still be possible to control the vacuum field by pedal.

Procedure sequence

– Select the "**Automatic vacuum field** " function.
– Press "**RETURN**" key.
  The automatic vacuum field will be switched on/off.

4.13 Setting the sewing speed



By means of the "**Sewing speed** " function it is possible to change the speed of the sewing machine head. It is possible to enter the values of 1-20 eingegeben werden, "20" being the maximum speed.

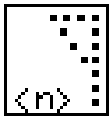
Procedure sequence

– Select the "**Sewing speed** " function.
– Press "**RETURN**" key
– Enter the desired sewing speed value by the numerical keys.
– Press "**RETURN**" key.

4.14 Setting the tacking speed

By means of the "**Tacking speed**" function it is possible to change the speed of the sewing machine head in the tacking area werden. It is possible to enter the values of, "20" corresponding to the pre-set sewing speed.

In case of lower values, the speed in the tacking area will be redxuced accordsingly.



Procedure sequence

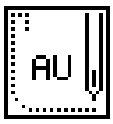
- Select the "**Tacking speed**" function.
- Press "**RETURN**" key
- Enter the desired sewing speed value for the tacking area by the numerical keys.
- Press "**RETURN**" key.

4.15 Sewing witthout folding

When the function "**Sewing without folding** " is activated, only the sewing process will take place. This function is used for testing the pocket seam.

CAUTION !

When this function is engaged, there should be under the transfer plate several plies of the material to be sewn.



Procedure sequence

- Select the function "**Sewing without folding**".
- The function can be switched on and off by the **RETURN** key.

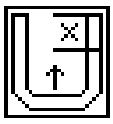
4.16 Switching point of the inside slides

The switching point, along which the inside slides are returning can be set to be 2-8 points before the tacking corner.

Make sure that in case of a failure (the inside slide not in the rear position), the switching point ensures that the machine cannot sew on the inside slide.

CAUTION !

The transfer plate must be prepared for further switching points of the inside slide. If the transfer plate is ssnot prepared, the sewing foot will be lowered onto the transfer plate.



Procedure sequence

- Select the function "**Switching point of the inside slide** ".
- Press "**RETURN**" key.
- Enter the desired switching point value of the inside slide by the numerical keys.
- Press "**RETURN**" key.

CAUTION !

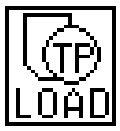
For testing the changed value, sew at low speed.

4.17 Chip card

The pocket programs and their variants are stored on the chip card.

As soon as the transfer-plate coding has been read in, access to the chip card is restricted to those pocket styles which can be sewn with the current style kit.

4.17.1 Loading pocket variants



- Select "**load pocket variant**" function.
- Select the required pocket program with the cursor keys.
  The selected pocket programme appears in the display in reverse video mode.
- Press the **RETURN** key.
  All possible variants of the selected pocket program are displayed.
- Select the required variant with the cursor keys.
  The original program has the number "0".
- Press the **RETURN** key.
  An hour glass will be presented while the pocket programmne is being loaded
  The main menu appears on the screen and the selected pocket style is graphically displayed.

4.17.2 Storing pocket variant

- Select the "**store pocket variant**" function.
- Enter a number for the pocket variant on the decimal keypad. The variant cannot be stored as variant "0".
- If the selected pocket variant already exists, the following message appears in the display:

  FILE EXISTS !

  Overwrite File ? (<CR>==YES)

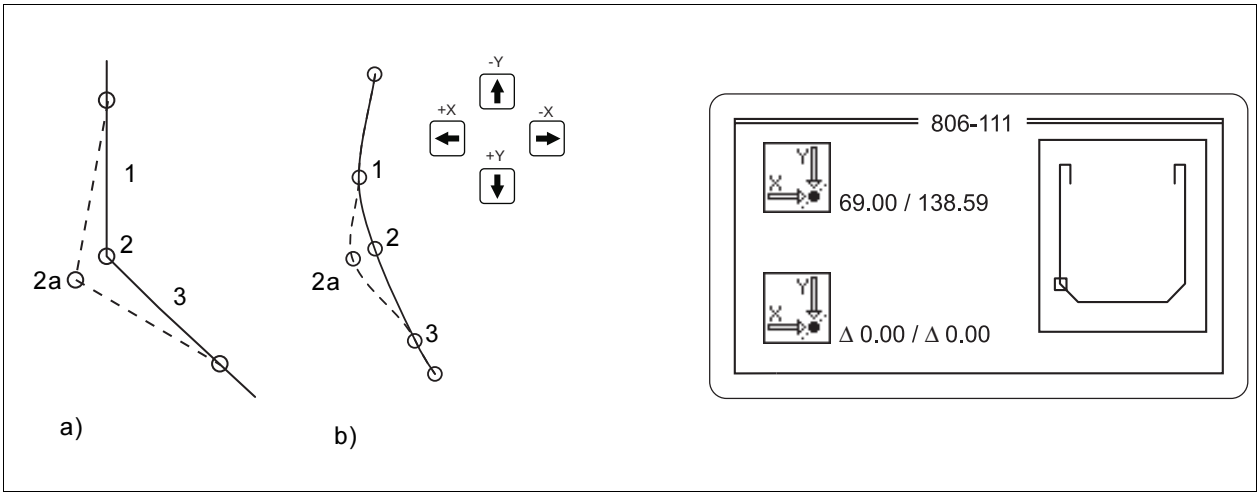
  - If the old pocket variant is to be replaced:
    Press the **RETURN** key.
  - If the old pocket variant is not to be replaced:
    Press the "**F1**" key.

4.17.3 Deleting a pocket variant

- Select the "**delete pocket variant**" function.
- Select the required pocket program with the cursor keys.
  The selected pocket programme appears in the display in reverse video mode.
- Press the **RETURN** key.
  All possible variants of the selected pocket program are loaded from the chip card and displayed.
- Select the required variant with the cursor keys.
  The original program has the number "0". Which cannot be deleted.
- Press the **RETURN** key.
  The selected pocket variant is deleted.

5. Seam corrections

5.1 Corner-stitch correction

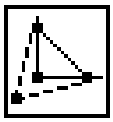


By the corner stitch correction it is possible to offset the corner stitches (fig. a) and the auxiliary points of the curved seam (fig. b).

The corner stitch consists of stitches 1, 2 and 3. The corner-stitch correction enables the position of stitch 2 to be offset. Offsetting the corner stitch has no effect on the seam before stitch 1 or after stitch 3.

A curved seam can consist of any number of curved points. A curved seam can be adapted, by correction, to the individual spline points)

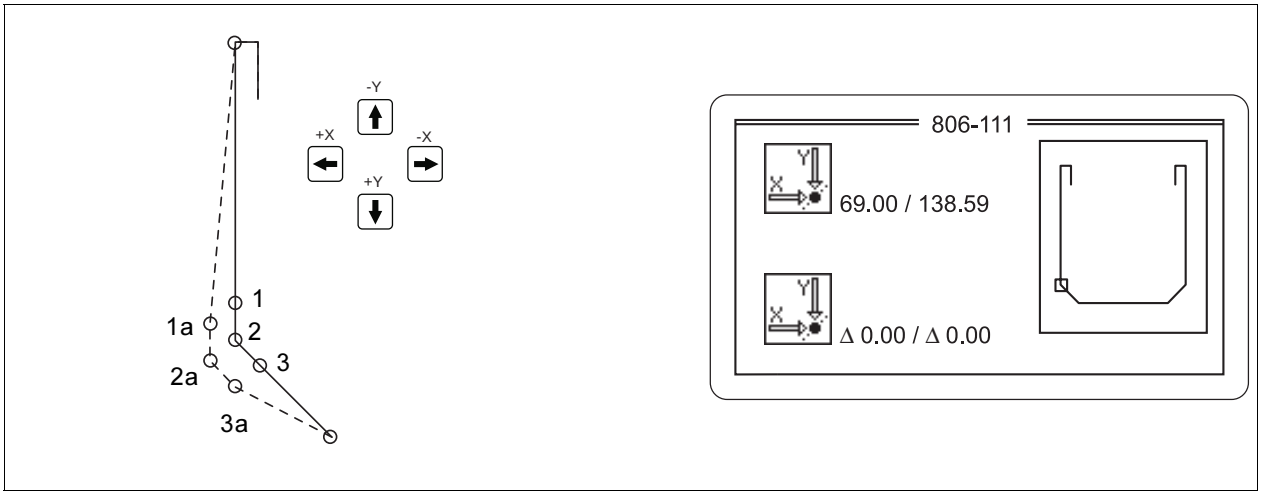
The position of the corner and bar-tack stitches can be adjusted in the X and Y directions by a maximum of 0.8 mm with the "**corner-stitch correction**" function.



Operating sequence

- Select the "**corner-stitch correction**" function.
- The pocket style appears in the display.
  The current corner point is highlighted, and it can be shifted in the desired direction with the corresponding cursor key.
  The current co-ordinates and the offset are displayed on the screen.
- For a quick change to the next stitch group (e.g. seam, bartack 1, bartack 2) press the key "**F 1"**
- When the correction of the stitch is complete, press the "**RETURN"** key.
  The next corner point is highlighted.
- Repeat the process until all the stitches have been processed.
- The first bar tack appears after seam start in the display.
  Correct the bar-tack stitches in the same way as the corner stitches.
- The two bar tack appears after seam start in the display.
  Correct the bar-tack stitches in the same way as the corner stitches.
- A general menu reappears in the display.
- To store the seam variant, proceed as described in section 4.17.2.

5.2 Seam offset

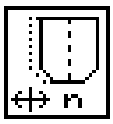


All supporting points, occuring in the seam programme, can be offset by the **"Seam offset"** function.

The corner points are shown in the display by a square. The three points (1, 2 and 3) of a corner stitch will be offset, when shifted, to the same extent.

All other points will be shown by a small circle.

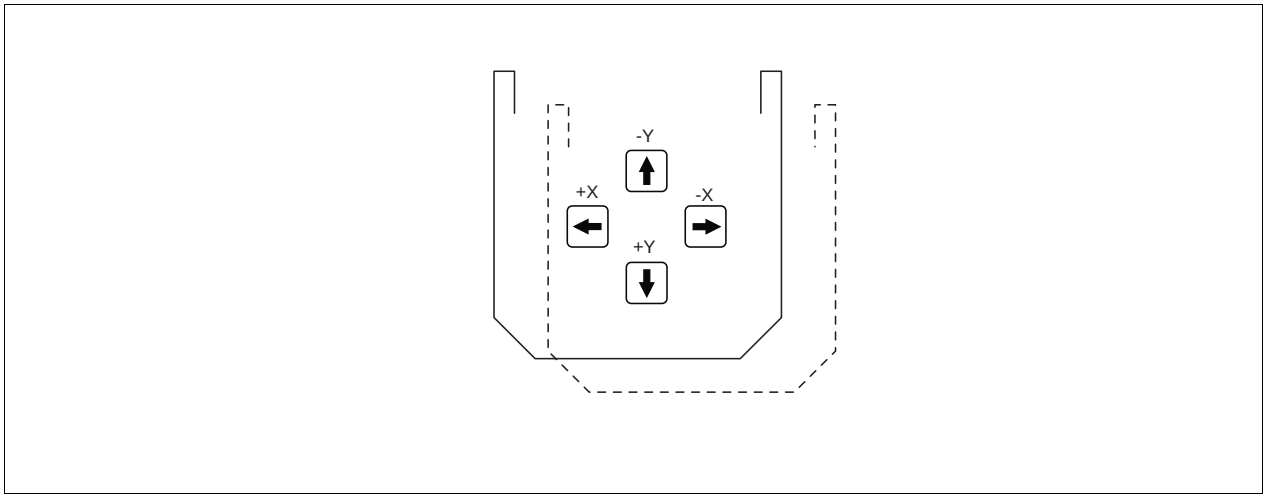
The position of the corner and bar-tack stitches can be adjusted in the X and Y directions by a maximum of 0.8 mm with the "**seam offset**" function.



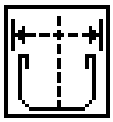
Procedure sequence

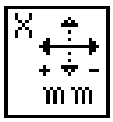
- Select the "**seam offset**" function.
- The pocket style appears in the display.
  The current corner point is highlighted, and it can be shifted in the desired direction with the corresponding cursor key.
  The current co-ordinates and the offset are displayed on the screen.
- For a quick change to the next stich group (e.g. seam, bartack 1, bartack 2), press the key **"F1"**
- When the correction of the seam is complete, press the "**RETURN**" key.
  The next stitch will be highlighted
- Repeat the process until all the corner points have been processed.
- The first bar tack appears after seam start in the display.
  Correct the bar-tack stitches in the same way as the corner stitches.
- The two bar tack appears after seam start in the display.
  Correct the bar-tack stitches in the same way as the corner stitches.
- A general menu reappears in the display.
- To store the seam variant, proceed as described in section 4.17.2.

5.3 Offsetting the seam form



The position of the corner and bar-tack stitches can be adjusted in the X and Y directions by a maximum of 2 mm with the "**seam-form offset**" function.





Operating sequence

– Select the "**seam-form offset**" function.

– The text:
"Δ [-2 mm .. 2 mm] : 0.00"
appears in the display.
Use the decimal keypad to enter a value for the offset along the X axis.
Press the "**RETURN**" key.

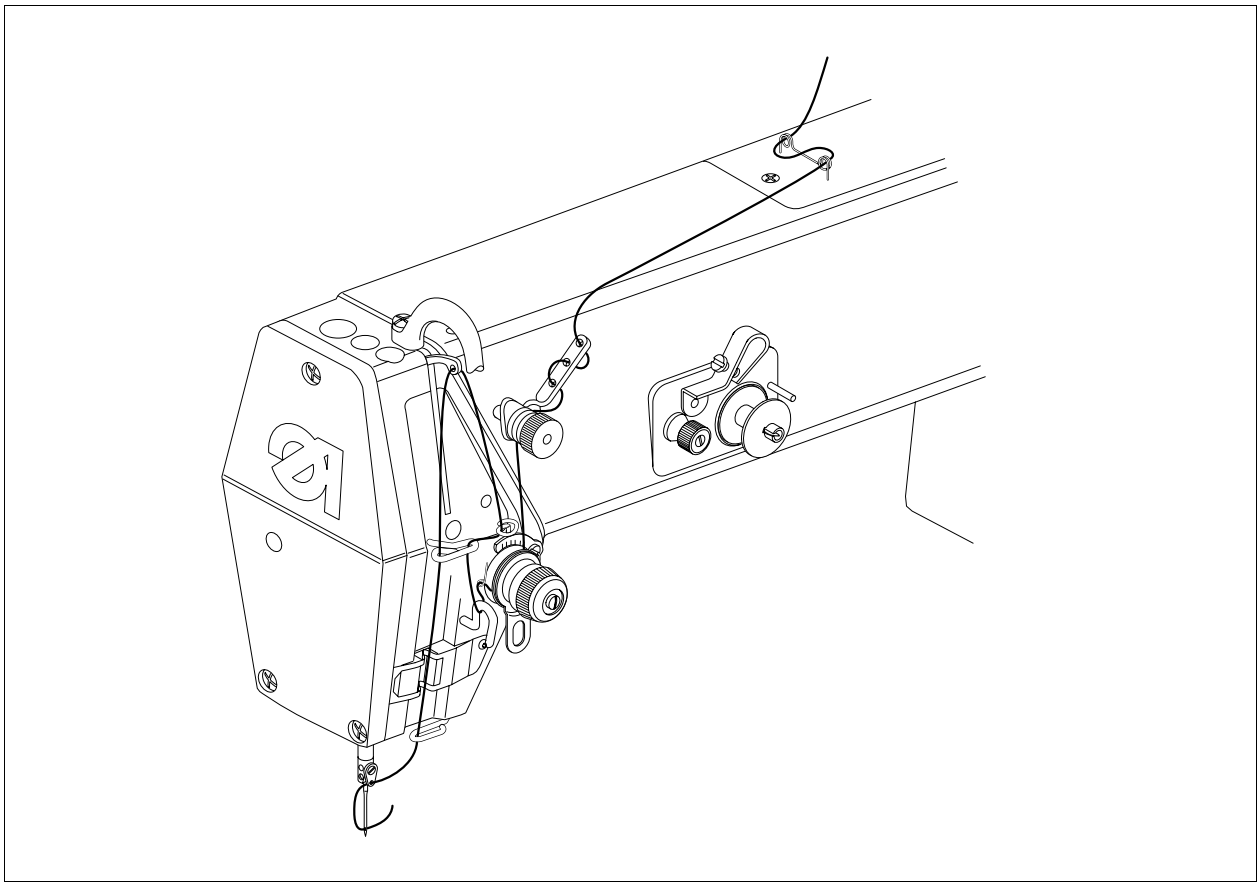
– The text:
"Δ [-2 mm .. 2 mm] : 0.00"
appears in the display.
Use the decimal keypad to enter a value for the offset along the Y axis.
Press the "**RETURN**" key.
The correction is automatically stored together with the current variant.

– A general menu reappears in the display.

6. Operating the sewing machine

6.1 Operating the sewing machine (sub-class 806-121)

6.1.1 Passing the needle thread through the needle

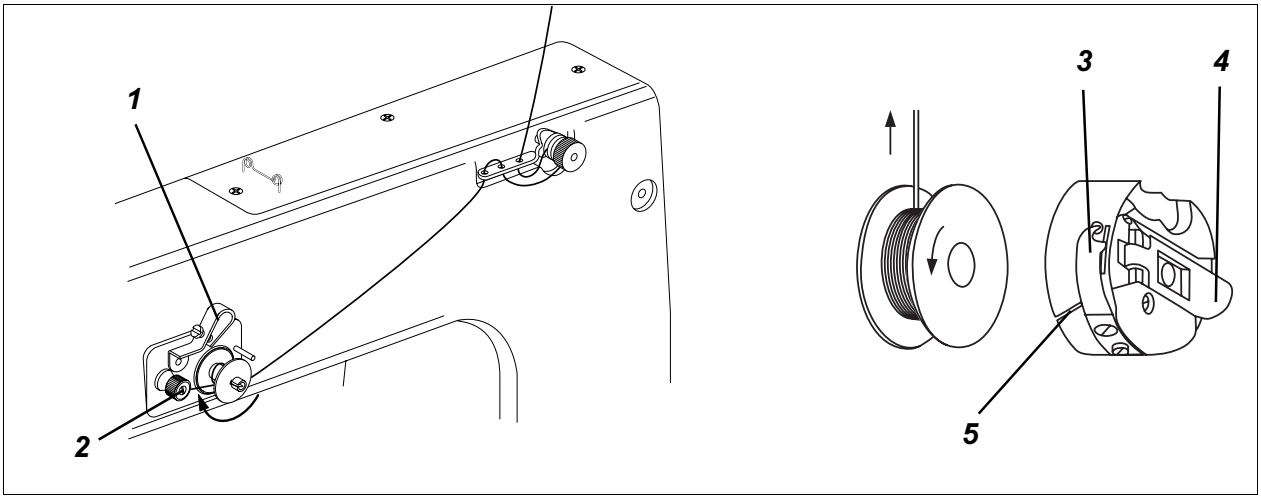


Caution: danger of injury

The machine must be in the "secure motor halt" position.

– Press the "**O**" key.
"Secure motor halt" is activated.
– Pass the needle thread through the needle as indicated on the adhesive label of the machine.
– Press the "**I**" key.

6.1.2 Winding the bobbin thread

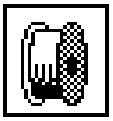


- Press the "**O**" key.
  "Secure motor halt" is activated.
- Thread the bobbin thread as shown in the illustration and wind it round the bobbin core.
- Press lever 1 against the bobbin.
- Winding-on takes place during sewing and is halted by the bobbin lever when the bobbin is full.
  Sever the thread with the cutter clamp 2.
- Press the "**I**" key.

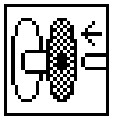
6.1.3 Changing the bobbin

Caution: danger of injury

The machine must be in the "secure motor halt" position.

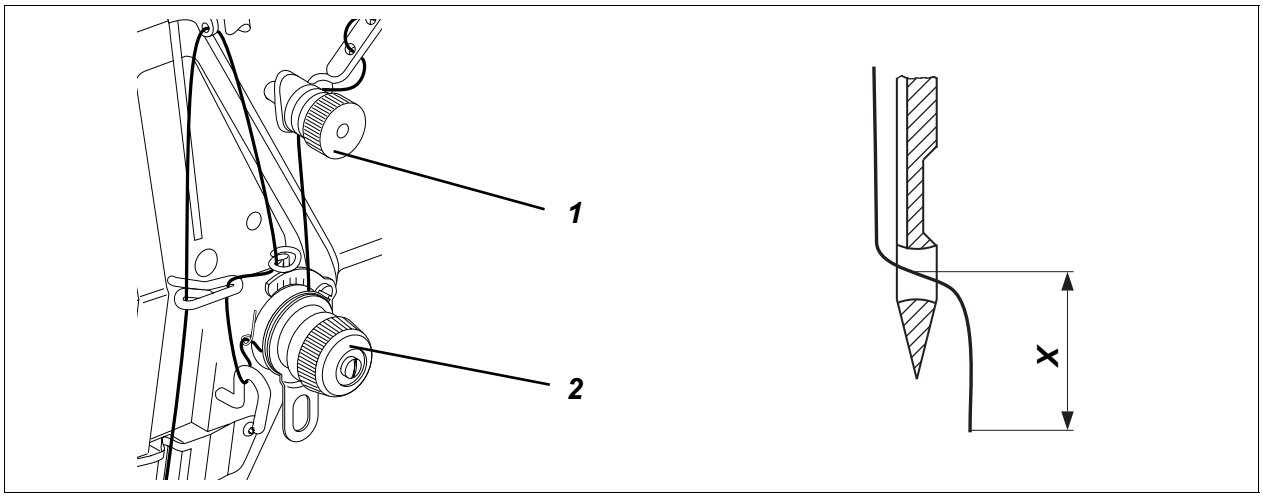



- Select the function "**bobbin change menu**".
  The inner stacker clamp opens.
- Press the "**O**" key.
  "Secure motor halt" is activated.
- Swing flap 4 upwards.
- Remove bobbin case with bobbin.
- Place the full bobbin in the case so that when the thread is unwound it rotates in the opposite direction.
- Pull the thread through the slit 5 beneath the spring 3.
- Pull out about 5 cm of thread.



- Press the case with bobbin into the centre-piece until the case engages with an audible sound.
- Select the function "**Terminate bobbin change"**

6.1.4 Adjusting the needle-thread tension



Caution: danger of injury

The machine must be in the "secure motor halt" position.

Adjusting the initial tension

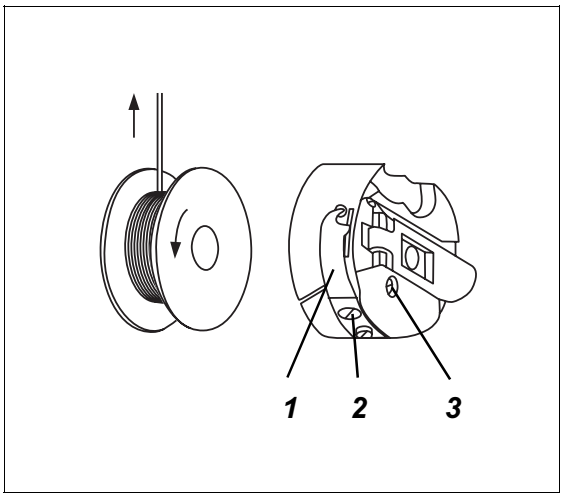
In order for the thread to be properly cut with the main tensioner 2 open, the residual tension in the needle thread must be low.

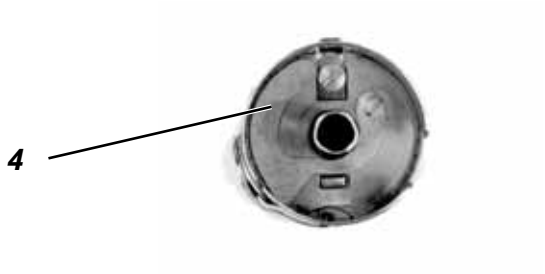
– Adjust the initial tension with the knurled nut 1 so that the thread is properly cut.
  The tensioner 1 also affects the length of the severed needle-thread end (the starting thread for the next seam).
  Screw tensioner in: needle-thread end X is shortened.
  Screw tensioner out: needle-thread end X is lengthened.

Adjusting the needle-thread tension

– Adjust the dial 2 in such a way that the desired seam contour is achieved with the least possible tension.

6.1.5 Adjusting the bobbin-thread tension





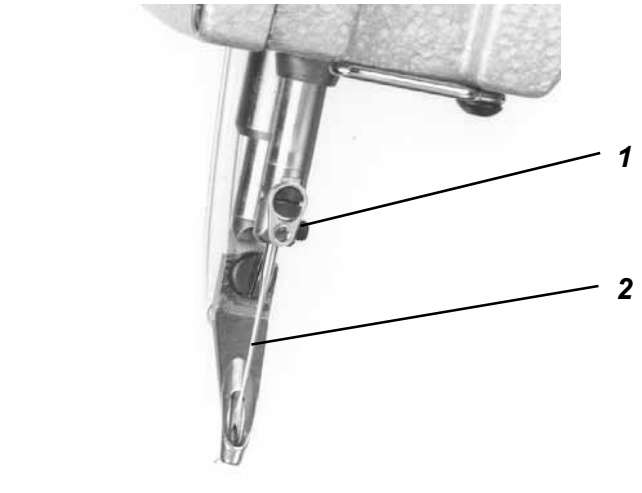
Caution: danger of injury

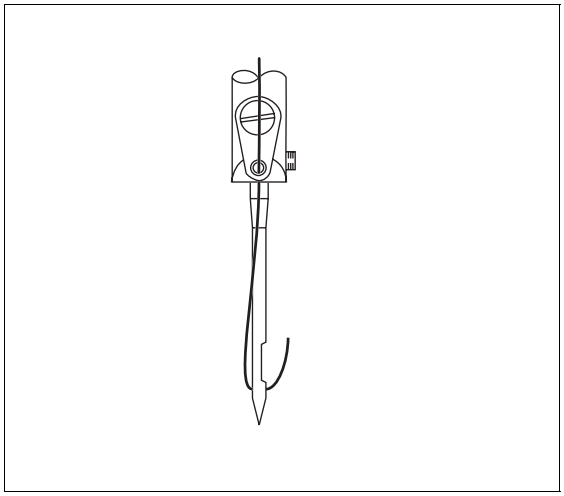
The machine must be in the "secure motor halt" position.

The bobbin-thread tension (20 - 25 cN) should be raisedmaintained in proportionally by the braking spring 4 and the tension spring 1.

- Press the "**O**" key.
  "Secure motor halt" is activated.
- Pull the bobbin thread by means of the needle thread out of the needle plate.
- Check the hook thread tension by means of the thread tension meter. The measured value should range between 20 and 25 cN in case of a middle size thread.
- Remove the bobbin case so that the thread still remains in the throat plate.
- Loosen the screw 2 until the tension of the leaf spring 1 is eliminated.
- Loosen the brake spring 4 by turning the screw 3 counter-clockwise.
- Replace the bobbin case with the bobbin.
- Set the hook thread tension to about 8 cN by turning the screw 3 conter-clockwise.
- Remove the bobbin case.
- Incrase the tension of the tension spring 1 by turning the screw 2 conter-clockwise.
- Replace the bobbin case and check the thread tension.
  It should be possible to attain a thread tension of 20-25 cN.
  If this value is not attained, remove the bobbin case and adjust the tension spring 1 until the tension is attained.
- Press the "**I**" key.

6.1.6 Changing the needle



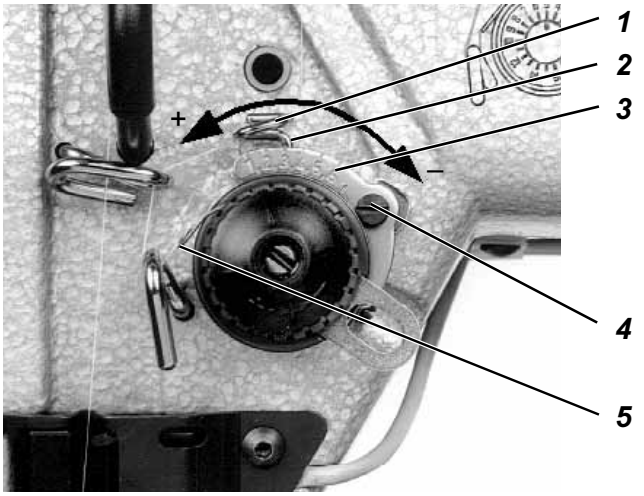


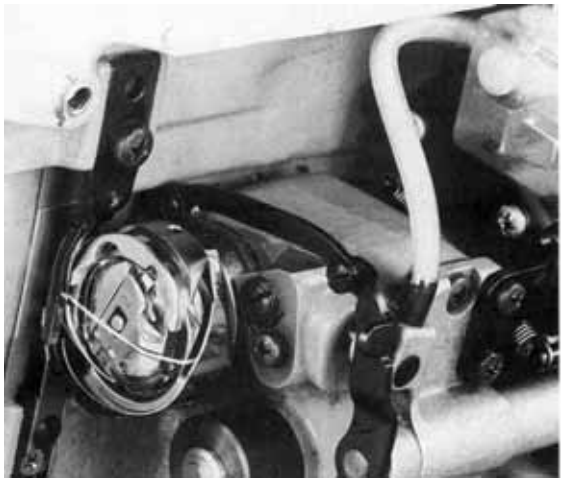
Caution: danger of injury

The machine must be in the "secure motor halt" position.

- Press the "**O**" key.
  "Secure motor halt" is activated.
- Loosen the srew 1 on the needle bar with the aid of a socket wrench SW 1,5.
- Change the needle 2 and align the new needle with the notch towards the hook.
- Push the needle fully upwards.
- Tighten the screw 1 on the needle bar.
- Press the "**I**" key.

6.1.7 Thread regulator





Caution: danger of injury

The machine must be in the "secure motor halt" position.

The quantity of needle thread required for stitch formation can be regulated with the thread regulator 1.

The setting depends on

- the stitch length
- the thickness of the material
- the properties of the yarn

The needle-thread loop should slide over the shuttle under low tension with no slack.

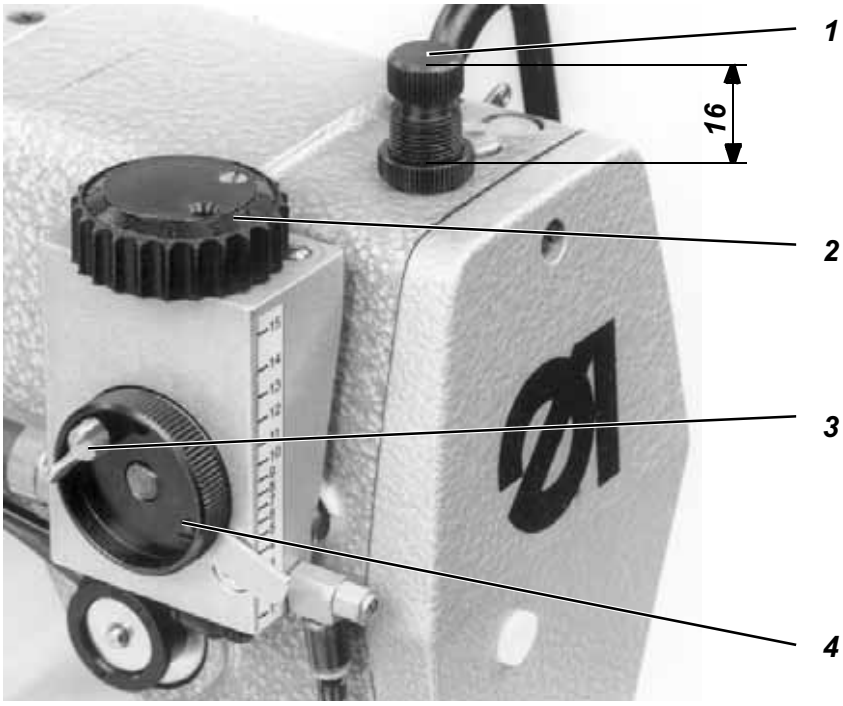
- Press the "**O**" key.
  "Secure motor halt" is activated.
- Undo the screw 4 and adjust the thread regulator.
  "**+**" direction: the thread quantity is increased.
  "**–**" direction: the thread quantity is decreased.
  The vertical part 2 of the wire acts as an adjustment aid in conjunction with scale 3.
- Press the "**I**" key.

Note

When the regulator is correctly adjusted the thread-tensioning spring 5 is pulled about 0.5 mm downwards from its upper position when the shuttle loop passes the shuttle's widest point. This is the point at which the thread requirement is at its greatest.

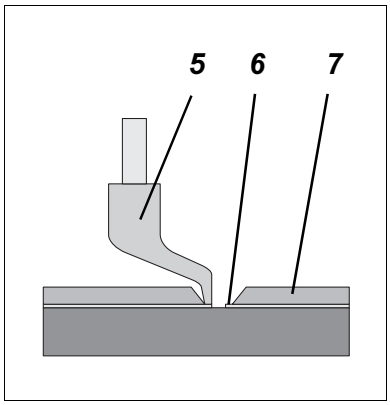
The 0.5 mm distance depends on the tension in the thread-tensioning spring and should be regarded only as an indicative value.

6.1.8 Adjusting the sewing foot



Caution: danger of injury

The machine must be in the "secure motor halt" position.



The sewing foot 5 should hold the material down in the area UT of the needle bar to the end of the lift of loop.

If the sewing foot is too low or too high it may cause seam-crimping and missed stitches respectively.

Sewing-foot pressure

– Adjust the sewing-foot pressure to match the material with the knurled screw 1. The engaged press from work is 50 ±5N, that is the measure of 16 mm.

Bottom stroke position / lower sewing foot height

At bottom dead centre the sewing foot 5 should lightly touch the material or the synthetic substance 6 of the transfer plate 7 (e.g. 0,2 mm press).

– For adjustment undo the wing screw 3 and turn the adjustment knob 4.

Top stroke position

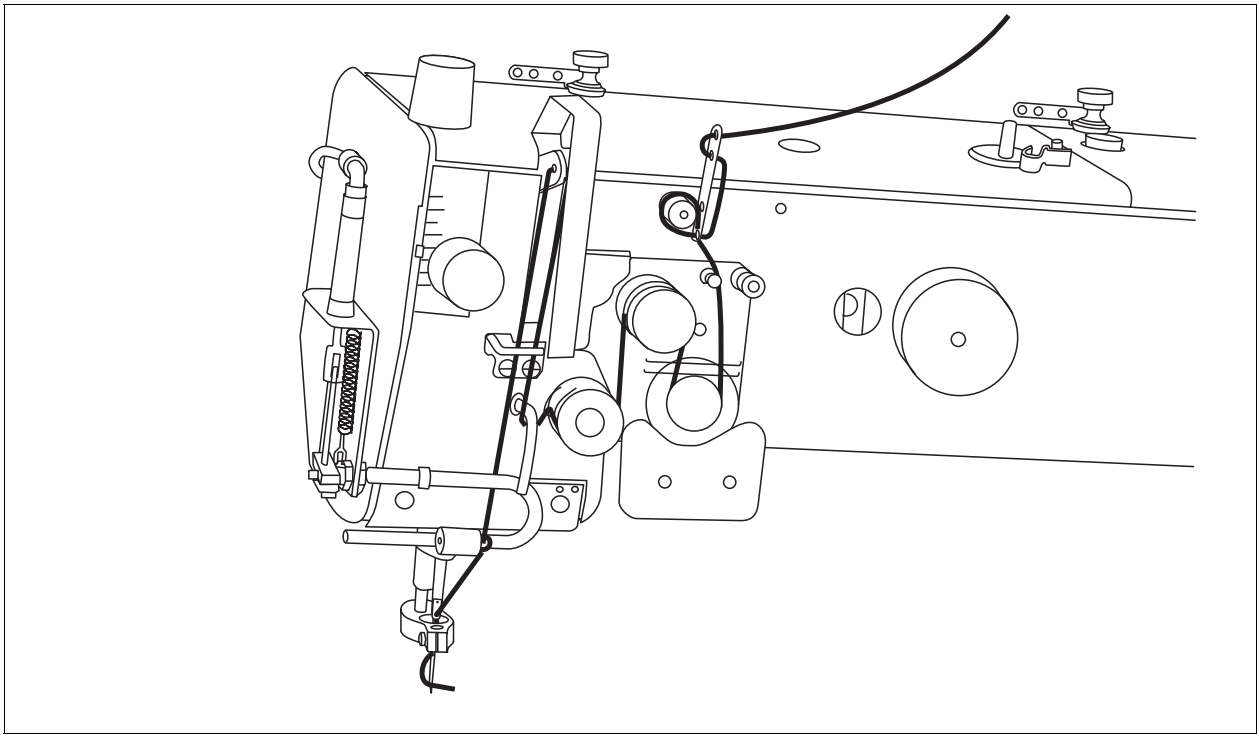
To sew seam sections on higher level material, e.g. in the tack area, the sewing foot can be brought into the top stroke position.
This, however, is only possible with programme variants that include a corresponing entry.

For seam sections with higher level material (the tack area) the sewing foot at its lower dead point should touch the material or the Delrin of the transfer plate lightly.

– Turn the dial 2 accordingly.

6.2 Operating the sewing machine (subclass 806-111)

6.2.1 Threading the needle

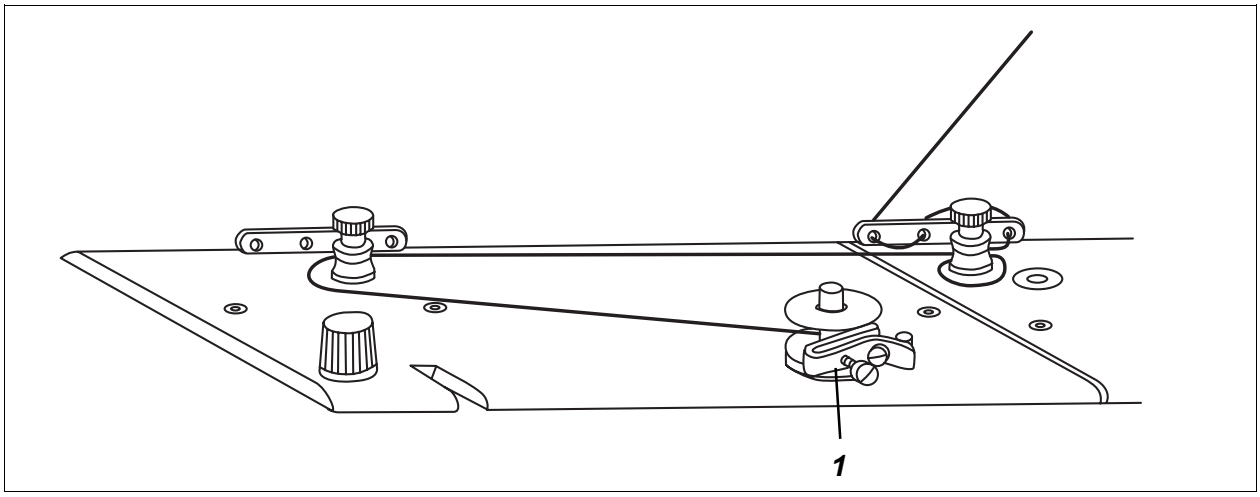


Caution - danger of injury

The machine must be in the "secure motor halt" position.

- Press "**O**".
  "Secure motor halt" is activated.
- Pass the needle thread through the needle as indicated on the adhesive label of the machine.
- Press the "**I**" key.

6.2.2 Winding the bobbin thread

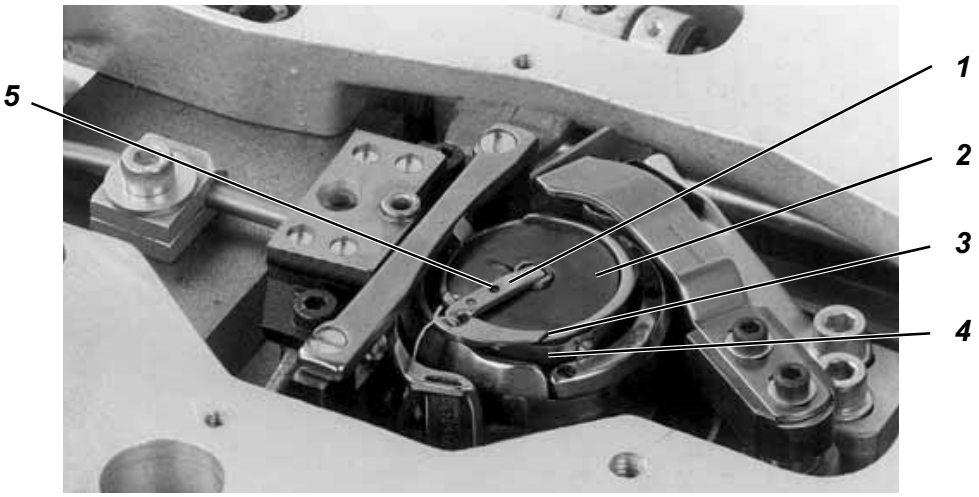


Caution - danger of injury

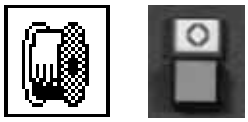
The machine must be in the "secure motor halt" position.

- Press the "**O**" key.
  "Secure motor halt" is activated.
- Pass the bobbin thread through the needle as indicated on the picture and wind it round the bobbin core.
- Press lever 1 against the bobbin.
- Press the "**I**" key.
  The bobbin is wound during the sewing process and is stopped by the bobbin winder lever when the bobbin is full.

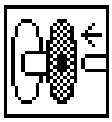
6.2.3 Changing the bobbin



Caution - danger of injury
The machine must be in the "secure motor halt" position.



- Select "**bobbin change menu**" function.
  The transfer carriage moves aside.
- When the transfer carriage has moved aside,
  press the "O" key.
  "Secure motor halt" is activated.
- Open the lid of the needle plate.
- Set up the latch 1.
- Remove the bobbin 2 which is held up by the spring.
- Insert the bobbin in such a way that it rotates opposite to the hook motion, when the thread is being unwound.
- Pull the thread through the slot 3 and under the spring 4.
- Close the latch 1.
- Pull out the thread by approx. 5 cm.
- Close the lid of the needle plate.

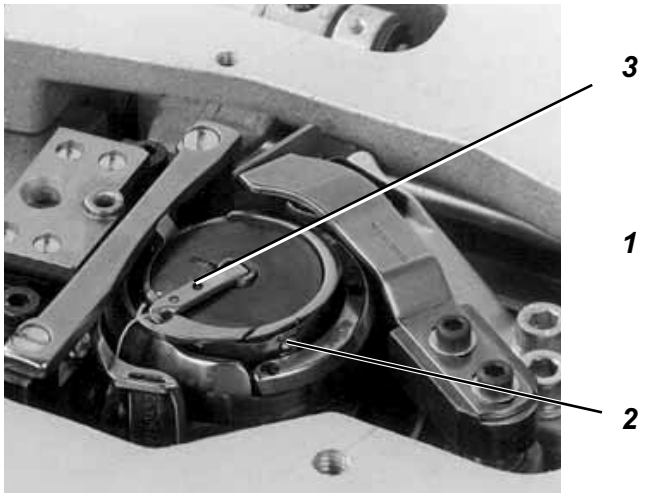


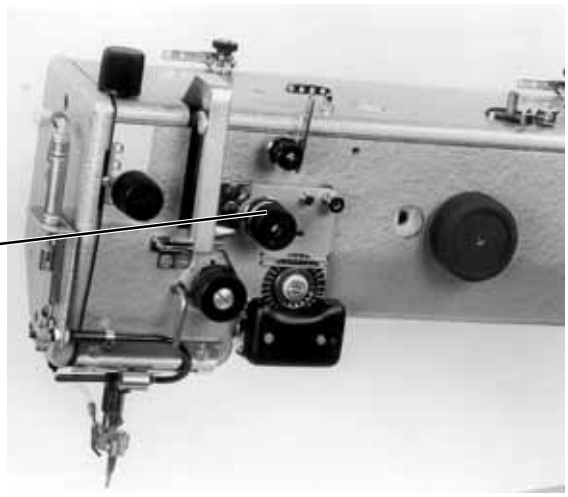
- Select the function "**Terminate bobbin change**".

Seam improvement with unusual materials and yarns

- Thread yarn through hole 5.
  Note:
  As this is more time-consuming, it should be done only if absolutely necessary to improve the seam.
  Caution!
  The looper-thread tension must be re-adjusted.
  (see section 6.2.4)

6.2.4 Adjusting the thread tension



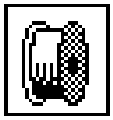


Adjusting the needle-thread tension:

– Adjust the knob 1 in such a way that the desired seam contour is achieved with the minimum possible tension.

Caution - danger of injury

The machine must be in the "secure motor halt" position.



Adjusting the bobbin-thread tension:

– Select "**bobbin change menu**" function.
The transfer carriage moves aside.

– When the transfer carriage has moved aside,
Press the "**O**" key.
"Secure motor halt" is activated.

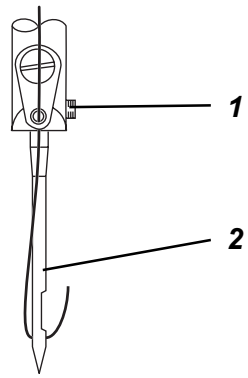
– Open the lid of the needle plate.

– The lowest possible tension should be set by adjusting the screw 2.
Caution!
If the looper thread has been threaded through the extra hole 3, its tension must be reset to the same value which applied before it was threaded through the extra hole.

– Close the lid of the needle plate.

– Press the key "**F1**".

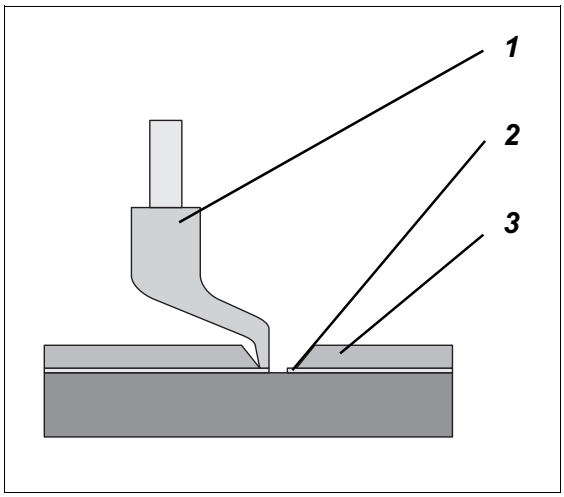
6.2.5 Changing the needle

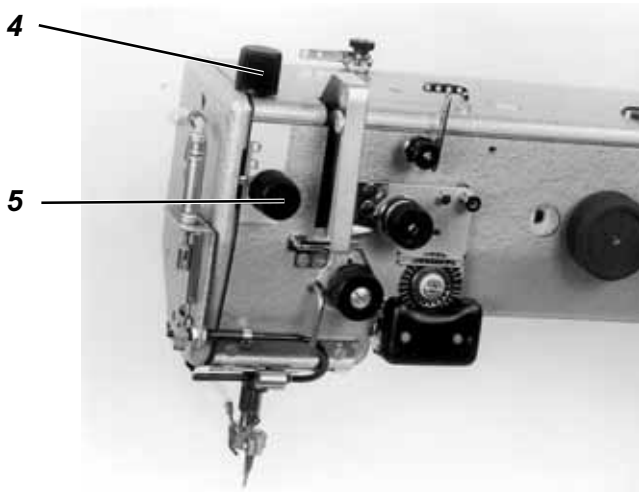


Caution - danger of injury
The machine must be in the "secure motor halt" position.

- Press the "**O**" key.
  "Secure motor halt" is activated.
- Loosen the screw 1 on the needle bar.
- Remove the old needle 2.
- Align the needle with the notch towards the hook.
- Pull the needle 2 right up.
- Tighten the screw 1 on the needle bar.
- Press the "**I**" key.

6.2.6 Adjusting the sewing foot





Caution: danger of injury

The machine must be in the "secure motor halt" position.

The sewing foot is supposed to hold but not press the material.

A sewing foot working in too low a position can cause a crimping of the seams while too high a position can lead to missed stitches.

Bottom stroke position

At its lower dead point the sewing foot 1 should touch the material or the Delrin 2 of the transfer plate 3 lightly.

– To correct this turn the dial 5 accordingly.

Top stroke position

To sew seam sections on higher level material, e.g. in the bar-tack area, the sewing foot can be brought into the top stroke position.
This, however, is only possible with programme variants that include a corresponding entry.

For seam sections with higher level material the sewing foot at its bottom dead centre should touch the material or the synthetic substance 2 of the transfer plate lightly.

– Turning the dial 4 accordingly

7. Maintenance

Caution - danger of injury

Maintenance work should only be carried out with the machine switched off.

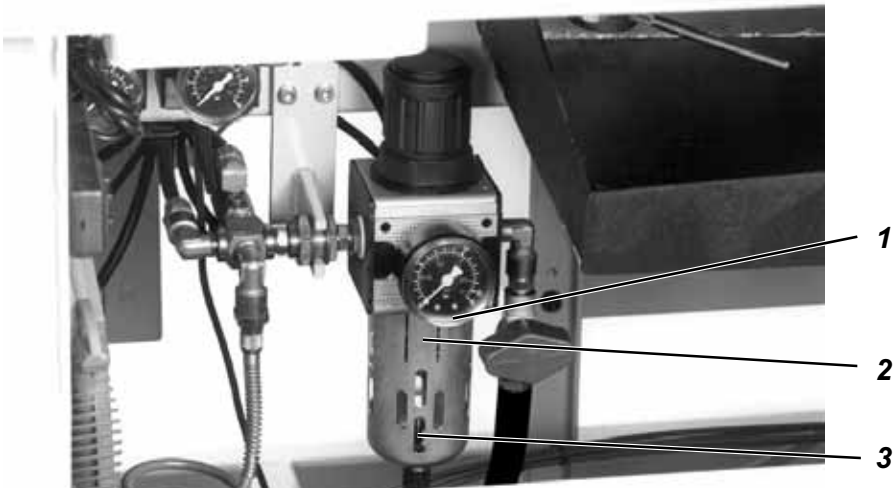
Where it is essential to carry out maintenance work with the machine running, the utmost care must be taken.

7.1 Cleaning

A clean sewing machine helps to avoid malfunctions.

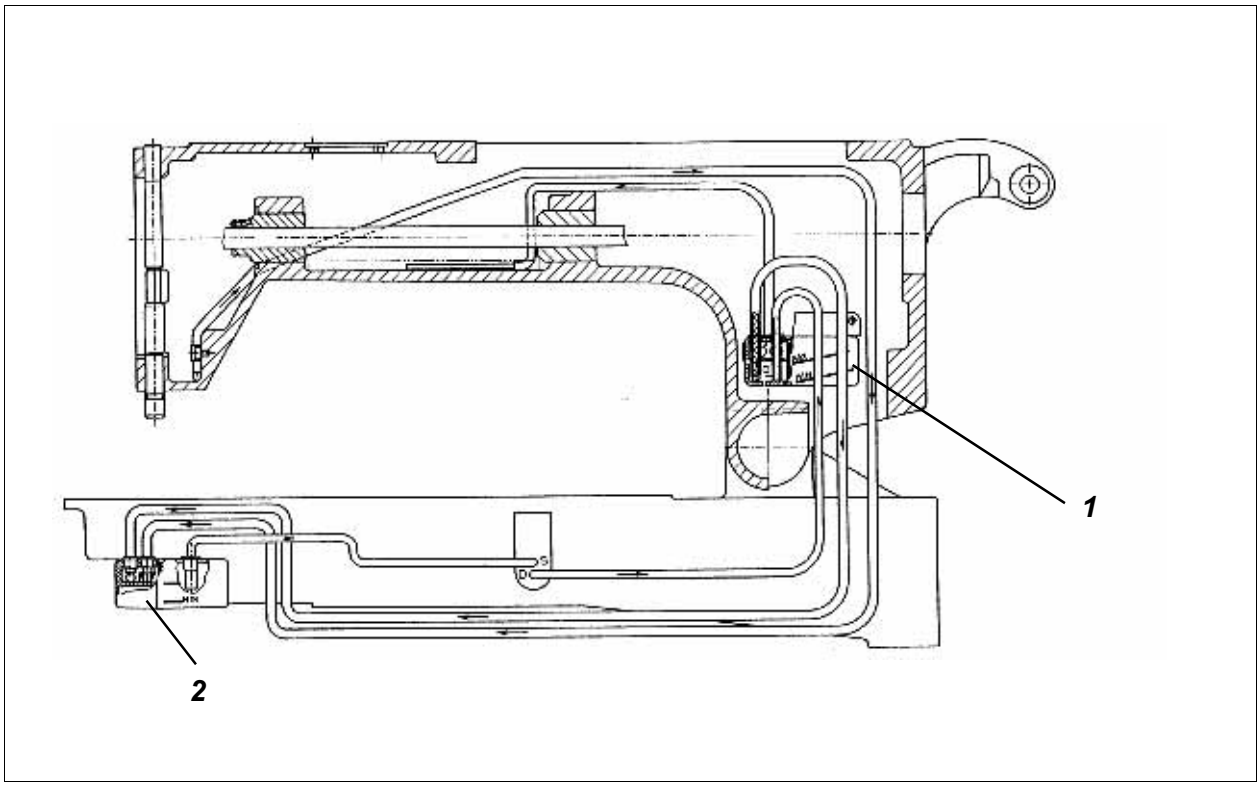
Daily cleaning:

– Remove any sewing dust, thread and cutting waste from the area of the hook, thread trimmer, needle plate and sewing head daily.
– Clean the oil sump daily!



– Check the water level in the pressure balance regulator.
The water level must not rise to the level of the filter insert 2.
After screwing in the drain plug 3 drain the water from the water separator 1 under pressure.

7.2 Lubrication (sub-class 806-121)



Check the oil level in the oil reservoir 1 once a week !

General

The 806-121 has two oil containers. The sewing-machine head is supplied with oil from container 1 in the arm.

Simultaneously oil flows via a wick connection 3 to the shuttle-oil container 2.

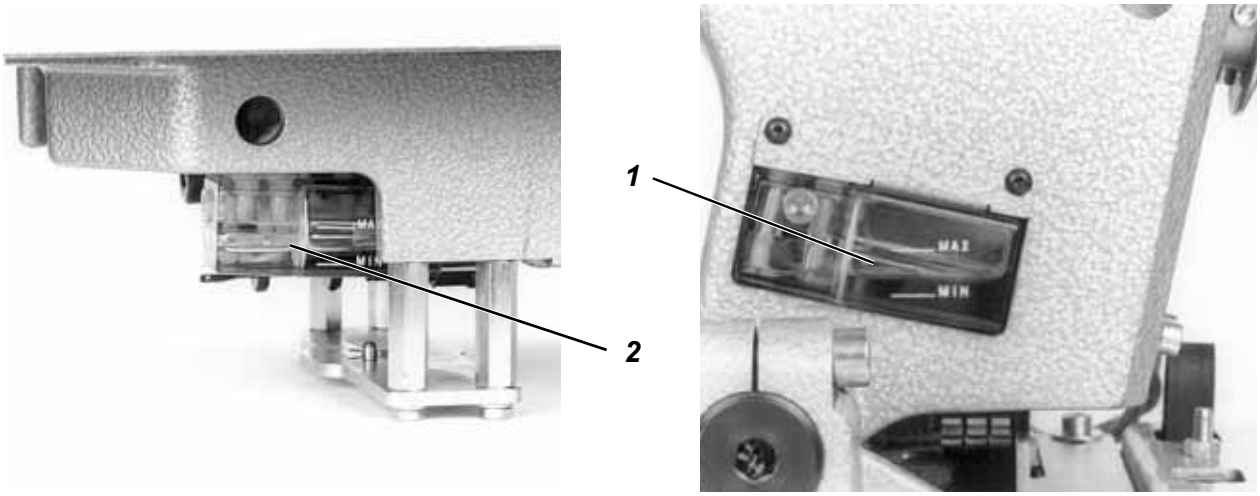
Oil above the MAX mark in the shuttle-oil container 2 is pumped back to the upper container 1.

Container 1 should be filled only with **DA-10** or an equivalent oil of the following specification:

– viscosity at 40°C : 10 mm^2/s
– flashpoint: 150 °C

DA-10 can be obtained from **DÜRKOPP ADLER AG** sales outlets under the following parts numbers:

9047 000011	250 ml
9047 000012	1 litres
9047 000013	2 litres
9047 000014	5 litres



Caution: danger of injury

Oil can cause skin rashes.
Avoid protracted contact with the skin.

Wash thoroughly after contact.

IMPORTANT

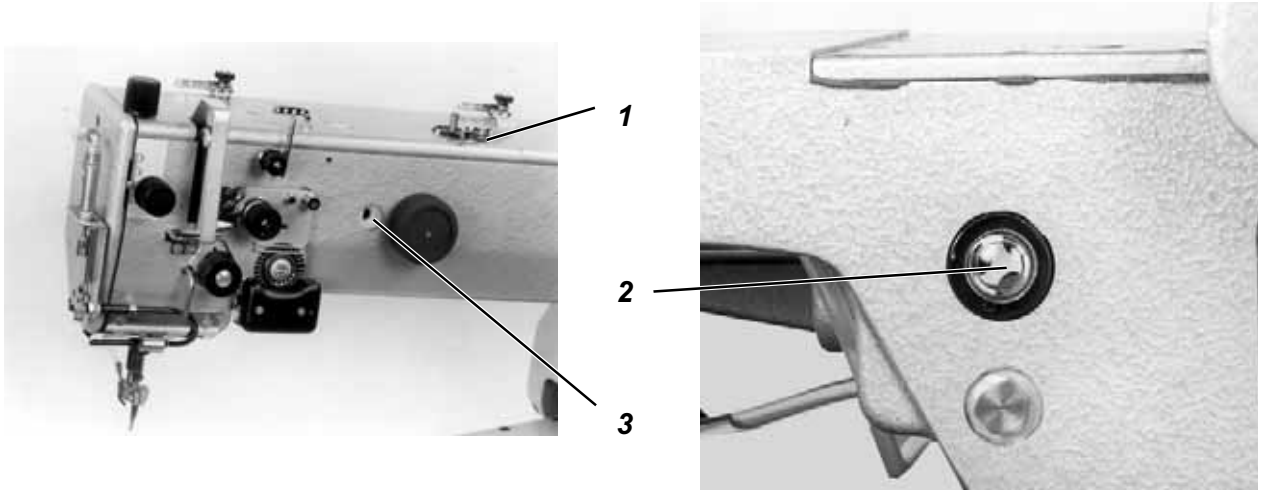
The handling and disposal of mineral oils are governed by legal provisions.
Take used oil to an authorised acceptance point.
Protect the environment.
Take care not to spill any oil.

Topping up the upper container

After extended interruptions (longer than 1 day) most of the oil is in the lower container, so the oil level in the upper container should not be checked and topped up until about 20 sewing cycles have been completed.

- Check the oil level at container 1.
  The oil level must be between the MIN and MAX marks.
- If the oil level in container 1 has reached the MIN mark, the oil level in container 2 should also be checked.
  If the oil level there is above the MAX mark, do not add any oil.
  Complete a further 20 or so sewing cycles and check the oil level again.
- Add oil through the oil-filler neck of container 1.
- Check the oil supply at container 1.
  Bubble formation should be clearly visible when the machine is running.

7.3 Lubrication (sub-class 806-111)



Check the oil level in the sight glass 2 once a week !

Caution: danger of injury

Oil can cause skin rashes.
Avoid longer skin contact.
Afer contact wash yourself thoroughly.

IMPORTANT

The handling and disposal of mineral oils is subject to legal constraints.
Deliver used oil to an authorized reception point.
Protect your environment.
Take care not to spill any oil.

The oil reservoir should be filled only with **DA-10** or an equivalent oil of the following specification:

- viscosity at 40°C : 10 mm^2/s
- flashpoint: 150 °C

DA-10 can be obtained from **DÜRKOPP ADLER AG** sales outlets under the following parts numbers:

9047 000011	250 ml
9047 000012	1 litres
9047 000013	2 litres
9047 000014	5 litres

- Refill the oil through the filler neck 1.
- Check the oil level in the sight glass 2.
  The oil level must be between the middle and the upper rim of the sight glass eye.
- Check the oil supply in the sight glass 3.
  The checks must be completed while the machine is running