

POWERLine

2571 ME PLUS

2574 ME PLUS

INSTRUCTION MANUAL

2591 ME PLUS

This instruction manual applies to machines
from software version **0389/001** and serial
number **2 766 760** onwards →



This Instruction Manual is valid for all models and subclasses listed in the chapter "Specifications".



The adjustment manual for the machines can be downloaded free of charge from the internet address

www.pfaff-industrial.com/pfaff/de/service/downloads

As an alternative to the internet download the adjustment manual can also be ordered in book form under part no. **2296-12-19 129/002**.

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**PFAFF Industriesysteme
und Maschinen AG**

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1 Safety

1.01 Directives

This machine is constructed in accordance with the European regulations contained in the conformity and manufacturer's declarations.

In addition to this Instruction Manual, also observe all generally accepted, statutory and other regulations and legal requirements and all valid environmental protection regulations! The regionally valid regulations of the social insurance society for occupational accidents or other supervisory organizations are to be strictly adhered to!

1.02 General notes on safety

- This machine may only be operated by adequately trained operators and only after having completely read and understood the Instruction Manual!
- All Notes on Safety and Instruction Manuals of the motor manufacturer are to be read before operating the machine!
- The danger and safety instructions on the machine itself are to be followed!
- This machine may only be used for the purpose for which it is intended and may not be operated without its safety devices. All safety regulations relevant to its operation are to be adhered to.
- When exchanging sewing tools (e.g. needle, roller presser, needle plate and bobbin), when threading the machine, when leaving the machine unattended and during maintenance work, the machine is to be separated from the power supply by switching off the On/Off switch or by removing the plug from the mains!
- Everyday maintenance work is only to be carried out by appropriately trained personnel!
- Repairs and special maintenance work may only be carried out by qualified service staff or appropriately trained personnel!
- Work on electrical equipment may only be carried out by appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! The only exceptions to this rule are found in the regulations EN 50110.
- Modifications and alterations to the machine may only be carried out under observance of all the relevant safety regulations!
- Only spare parts which have been approved by us are to be used for repairs! We expressly point out that any replacement parts or accessories which are not supplied by us have not been tested and approved by us. The installation and/or use of any such products can lead to negative changes in the structural characteristics of the machine. We are not liable for any damage which may be caused by non-original parts.

1.03

Safety symbols



Danger!
Points to be observed.



Danger of injury for operating and specialist personnel!



Caution

Do not operate without finger guard and safety devices.
Before threading, changing bobbin and needle, cleaning etc. **switch off main switch.**

1.04

Important points for the user

- This Instruction Manual is an integral part of the machine and must be available to the operating personnel at all times.
- The Instruction Manual must be read before operating the machine for the first time.
- The operating and specialist personnel is to be instructed as to the safety equipment of the machine and regarding safe work methods.
- It is the duty of the user to only operate the machine in perfect running order.
- It is the obligation of the user to ensure that none of the safety mechanisms are removed or deactivated.
- It is the obligation of the user to ensure that only authorized persons operate and work on the machine.

Further information can be obtained from your PFAFF agent.

1.05 Operating and specialist personnel

1.05.01 Operating personnel

Operating personnel are persons responsible for the equipping, operating and cleaning of the machine as well as for taking care of problems arising in the sewing area.

The operating personnel is required to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- never use any working methods which could adversely affect the safety of the machine!
- not wear loose-fitting clothing or jewelery such as chains or rings!
- also ensure that only authorized persons have access to the potentially dangerous area around the machine!
- always immediately report to the person responsible any changes in the machine which may limit its safety!

1.05.02 Specialist personnel

Specialist personnel are persons with a specialist education in the fields of electrics, electronics and mechanics. They are responsible for the lubrication, maintenance, repair and adjustment of the machine.

The specialist personnel is obliged to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- switch off the On/Off switch before carrying out adjustments or repairs, and ensure that it cannot be switched on again unintentionally!
- wait until the luminous diode on the control box is no longer blinking or on before beginning adjustment or repair work.
- never work on parts which are still connected to the power supply! Exceptions are explained in the regulations EN 50110.
- replace the protective coverings and close the electrical control box after all repairs or maintenance work!

1.06

Danger warnings



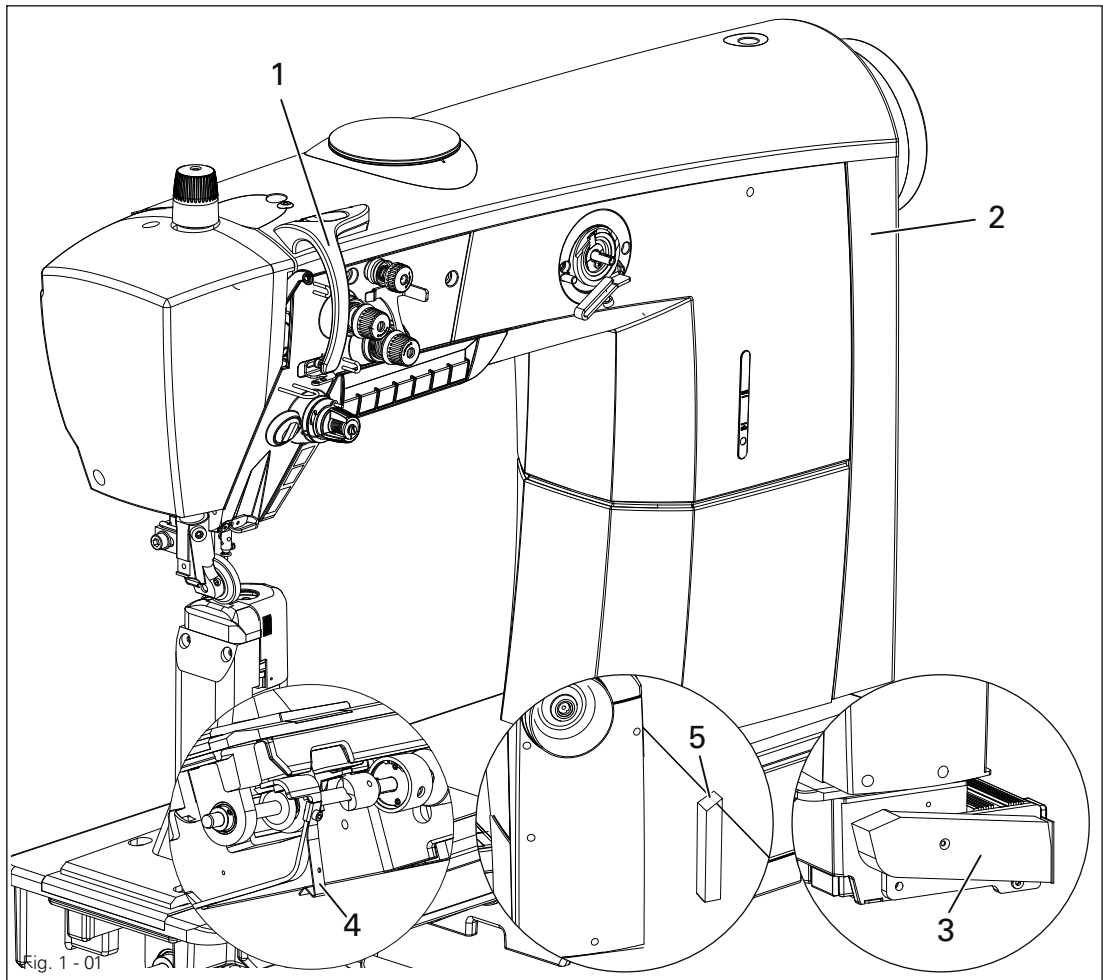
A working area of 1 m must be kept free both in front of and behind the machine, so that easy access is possible at all times.



Never put your hands or fingers in the sewing area during sewing!
Danger of injury by the needle!



While setting or adjusting the machine do not leave any objects on the table nor in the needle plate area! Objects may be trapped or flung out of the machine!



Do not run the machine without take-up lever guard 1!
Danger of injury by moving take-up lever!



Do not operate machine without cover 2 and belt guard 3!
Risk of injury from moving parts!



Do not operate the machine without tilt lock 4!
Danger of crushing between sewing head and table!



Do not operate the machine without support 5! Danger due to top-heavy sewing head! Machine can tip over backwards when tilted!

2

Proper use

The PFAFF 2571 ME and PFAFF 2591ME are high-speed, single-needle postbed sewing machines with a forwards and reverse feeding feed wheel and roller presser and needle feed.

PFAFF 2571 ME Post to the left of the needle.

PFAFF 2591 ME Post to the right of the needle.

The PFAFF 2574 ME is a high-speed, two-needle postbed sewing machines with a forwards and reverse feeding feed wheel and roller presser.

The machines are used for sewing lockstitch seams in the leather and upholstery industries.



Any and all uses of this machine which have not been approved of by the manufacturer are considered to be inappropriate! The manufacturer cannot be held liable for any damage caused by the inappropriate use of the machine!
The appropriate use of the machine includes the observance of all operational, adjustment, maintenance and repair measures required by the manufacturer!

Specifications

3 Specifications *

3.01 PFAFF 2571 ME, 2574 ME, 2591 ME

Stitch type:.....301 (lockstitch)

Needle system:

2571, 2591 134

2574 134 - 35

Model:..... A, B, C

Needle thickness in 1/100 mm:

Model A: 70

Model B: 100

Model C: 130

Stitch length max.:5,0 mm

Thread thickness max. (Synthetiks):

Model A: 60/3▲

Model B: 40/3▲

Model C: 15/3▲

Clearance under roller presser:7 mm

Clearance width:345 mm

Clearance height:290 mm

Post height:180 mm

Max. speed:

PFAFF 2571, 2591 Ausführung A + B 3500 spm ♦

PFAFF 2574 Ausführung A + B 2600 spm ♦

PFAFF 2574, 2591 Ausführung C 2000 spm ♦

Cutting depth (for -725/..):0.8 – 2.5 mm

Cutting speed (for -725/..): 2800 cuts/min.

Noise data:

Emission level at workplace at appropriate speed

(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)

model A + B at a speed of 2800 spm.: $L_{pA} = 80 \text{ dB(A)}$ ■

model C at a speed of 1600 spm.: $L_{pA} = 74 \text{ dB(A)}$ ■

Connection data:

Operating voltage: 230 V ± 10%, 50/60 Hz

Max. power consumption: 1.2 kVA

Fuse protection: 1 x 16 A, inert

Leakage current: ≤ 5 mA **

Net weight of sewing head:.....approx. 87 kg

Gross weight of sewing head:.....approx. 97 kg

* Subject to alteration

** Due to the use of network filters there is a nominal leakage current of ≤ 5 mA.

♦ Dependent on material, work operation and stitch length

▲ or similar strengths of other types of thread

■ $K_{pA} = 2,5 \text{ dB}$

3.02 Machine equipment and options

Vetical hook	●
Thread trimmer (-900/81), < 13 mm thread ends	●
Presser foot lift (-910/..), electromagnetic	●
Knuckle switch manual locking	●
Automatic backtacking (-911/..)	●
Oil level control through inspection glass	●
Roller-presser pressure, manually adjustable	●
DC-motor functionality	●
Control panel - PicoTop	●
Integrated multiple switch on machine head	●
Integrated LED sewing lamp on sewing head, dimmable	●
Bobbin thread winding device	●
Edge trimmer -725/.. (only on the 2571 and 2591)	○

● = Standard, ○ = Option

4 Disposal of Machine

- Proper disposal of the machine is the responsibility of the customer.
- The materials used for the machine are steel, aluminium, brass and various plastic materials. The electrical equipment comprises plastic materials and copper.
- The machine is to be disposed of according to the locally valid pollution control regulations; if necessary, a specialist is to be commissioned.



Care must be taken that parts soiled with lubricants are disposed of separately according to the locally valid pollution control regulations!

5 Transportation, packing and storage

5.01 Transportation to customer's premises

The machines are delivered completely packed.

5.02 Transportation inside the customer's premises

The manufacturer cannot be made liable for transportation inside the customer's premises nor to other operating locations. It must be ensured that the machines are only transported in an upright position.

5.03 Disposal of packing materials

The packing materials of this machine comprise paper, cardboard and VCE fibre. Proper disposal of the packing material is the responsibility of the customer.

5.04 Storage

If the machine is not in use, it can be stored as it is for a period of up to six months, but it should be protected against dust and moisture.

If the machine is stored for longer periods, the individual parts, especially the surfaces of moving parts, must be protected against corrosion, e.g. by a film of oil.

6 Explanation of symbols

In this instruction manual, work to be carried out or important information is accentuated by symbols. These symbols have the following meanings:



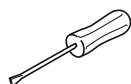
Note, information



Cleaning, care



Lubrication



Maintenance, repairs, adjustment, service work
(only to be carried out by technical staff)

7 Controls

7.01 On/off switch / Sewing lamp switch (option)

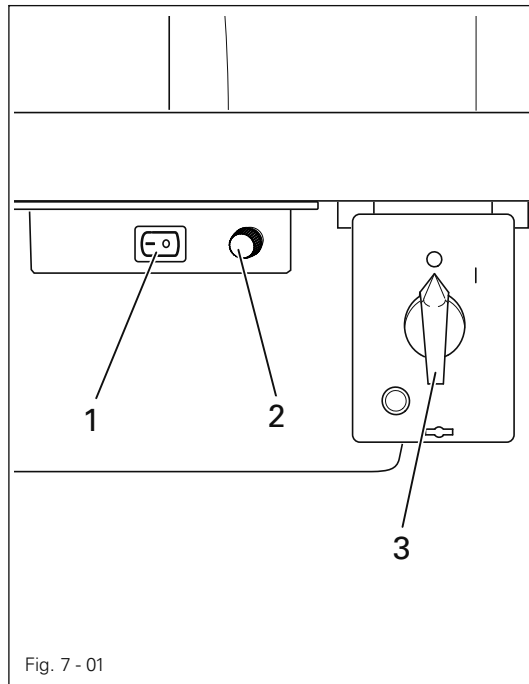


Fig. 7 - 01

- To switch the control system of the machine on or off, turn main switch 1.
- Switch the sewing lamp, which is integrated in the machine head, on or off by operating switch 2.
- Switch 3 regulates the brightness of the sewing lamp.

7.02 Pedal

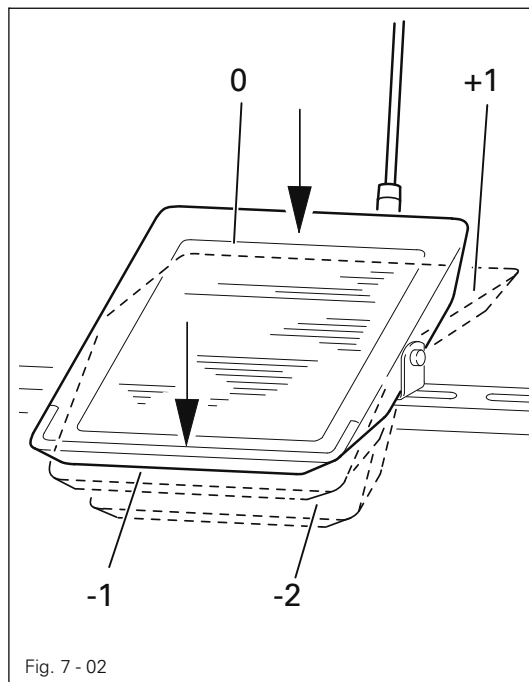
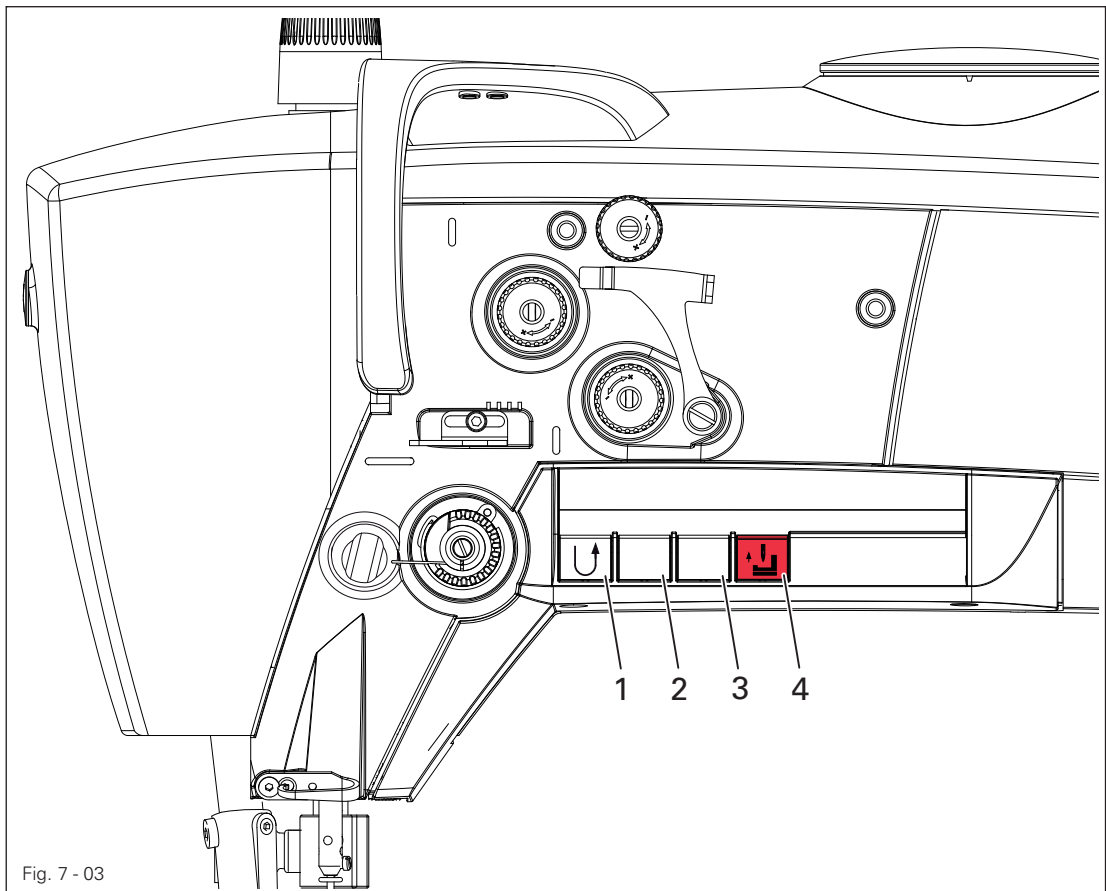


Fig. 7 - 02

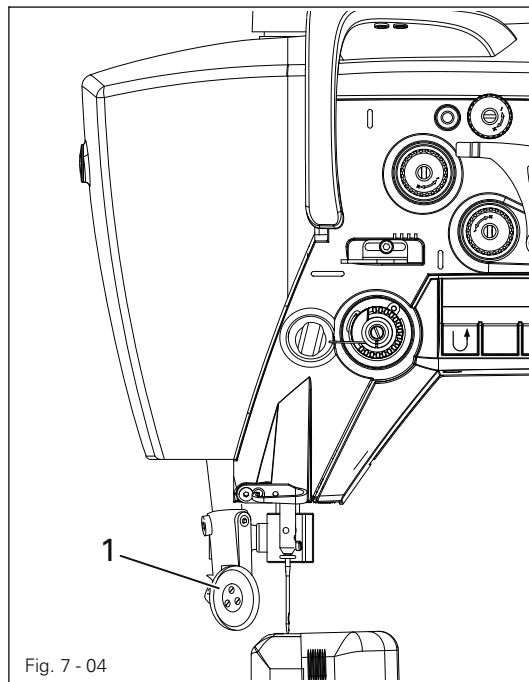
- With the on/off switch on
 - 0 = Machine stop
 - +1 = Sew
 - 1 = Raise roller presser
 - 2 = Trim thread

7.03 Keyboard on machine head



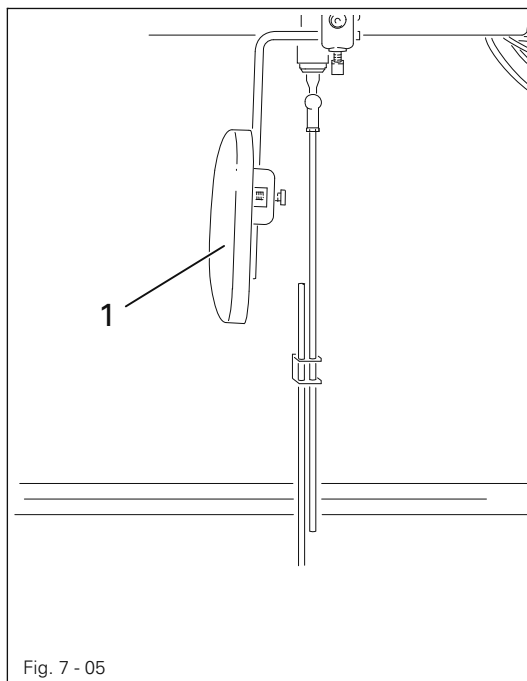
- The machine as a keyboard with 4 keys to activate different functions.
 - When the keys 1 – 4 are operated on the standard version, the functions listed below are carried out.
- Key 1: Reverse sewing or intermediate backtacks during the seam (Standard)
- Key 2: Needle position change / Half stitch
In setting **203**, this button can be allocated to the following functions:
1 = Half stitch, 2 = Needle position change, 3 = Knee switch
- Key 3: Needle position change / Single stitch
In setting **204** this button can be allocated to the following functions:
1 = Single stitch, 2 = Needle position change, 3 = Knee switch
- Key 4: EMERGENCY key
Needle rises without thread trimming, thread tension is released, roller presser is raised and the motor start inhibitor is activated. If the key is operated again, the motor start inhibitor is deactivated.

7.04 Swivel out the roller-presser



- In the raised position the roller-presser 1 can be swivelled out by gently pulling downwards.

7.05 Knee lever



- Operate knee lever 1 to raise the roller presser.

7.06 Switchable needle thread tension

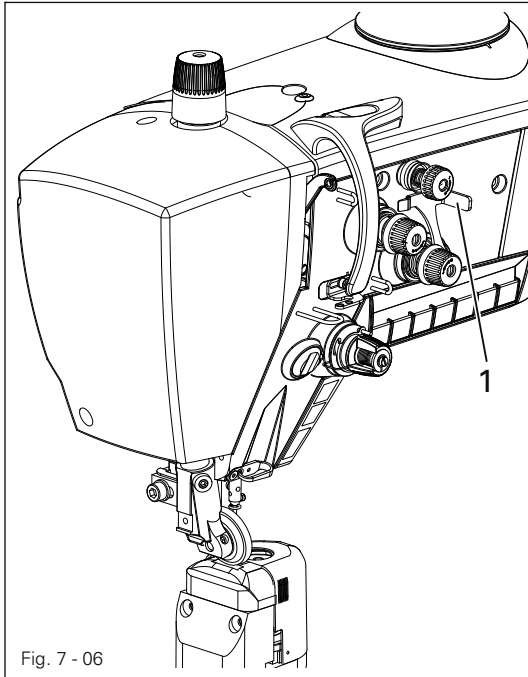
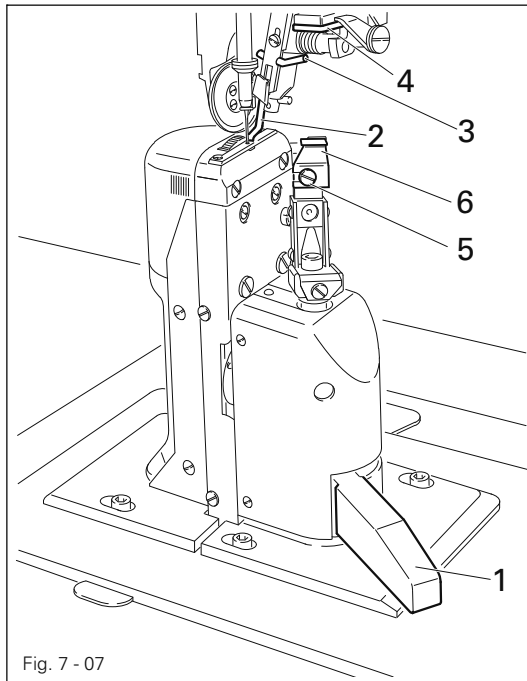


Fig. 7 - 06

- The needle thread tension can be increased by turning lever 1 to the right.

7.07 Edge trimmer -725/04 for 2571 ME



Keep your hands away from the moving knife! Danger of injury!

Switch on knife drive:

- Move lever 1 backwards. The knife moves into operating position.

Switch off knife drive:

- Press lever 1. The knife swings backwards.

Switch on edge guide:

- Swing edge guide 2 into position by hand and press lever 3. The edge guide 2 moves into its operating position.

Switch off edge guide:

- Raise edge guide 2 and let it click into position. The edge guide 2 is out of operation.
- Raise lever 4. The edge guide swings backwards.

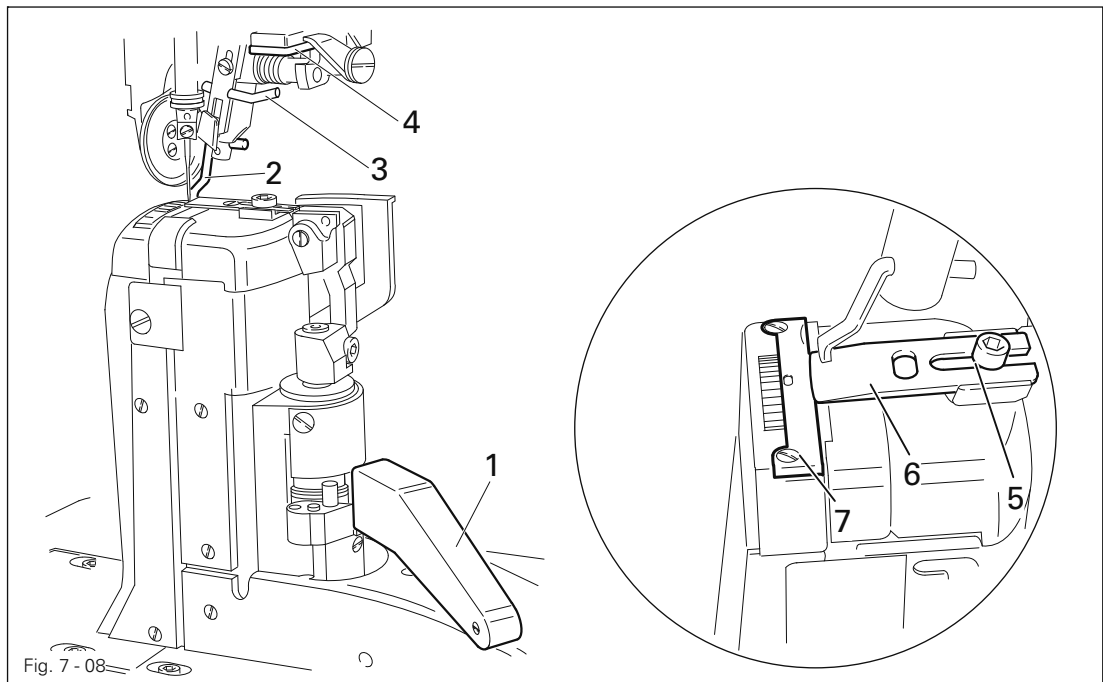
Changing the knife:



The following work may only be carried out by technical staff or by persons who have been properly instructed.

- Switch off the machine.
- Loosen screw 5 and remove knife 6.
- Insert new knife and slightly tighten screw 5.
- Adjust the knife according to Chapter 1.06.05 Cutting stroke and tighten screw 5.

7.08 Edge trimmer -725/04 for 2591 ME



Keep your hands away from the moving knife! Danger of injury!

Switch on knife drive:

- Move lever 1 backwards. The knife moves into operating position.

Switch off knife drive:

- Press lever 1. The knife swings backwards.

Switch on edge guide:

- Swing edge guide 2 into position by hand and press lever 3. The edge guide 2 moves into its operating position.

Switch off edge guide:

- Raise edge guide 2 and let it click into position. The edge guide 2 is out of operation.
- Raise lever 4. The edge guide swings backwards.

Changing the knife:

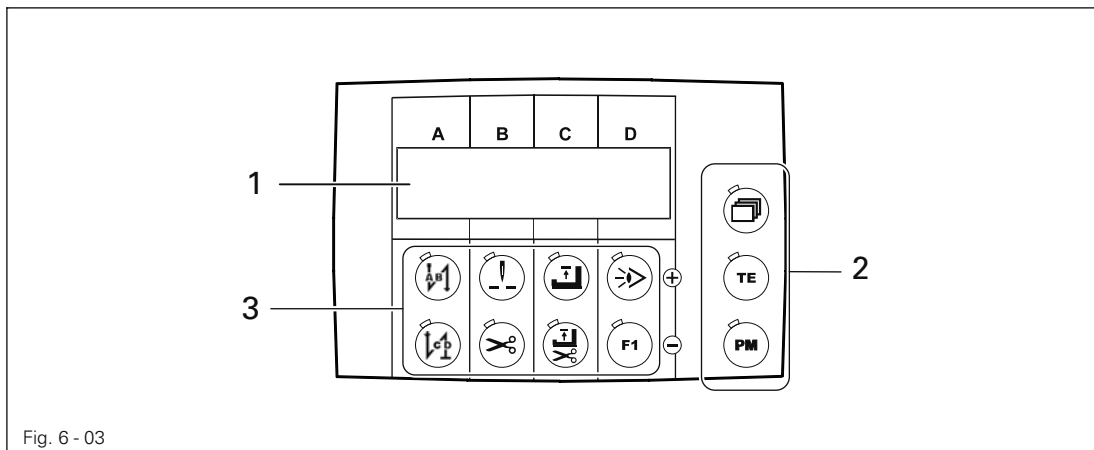


The following work may only be carried out by technical staff or by persons who have been properly instructed.

- Switch off the machine.
- Loosen screw 5 and remove knife 6.
- Insert new knife and push it close to needle plate insert 7.
- Slightly tighten screw 5.
- Adjust the knife according to Chapter 1.06.07 Knife position and tighten screw 5.

7.09 Control panel

The control panel is used to display and call up the machine functions for setting up and for sewing operation, for entering parameter values and for reading error messages and service settings.



The control panel has the following operating and display elements:

- The display **1** consists of a one-line display with an **8-figure** LCD-matrix and is used to show appropriate information and selection parameter.
- The selection keys **2** are used to change the screen display, to switch the function keys and to select the operating mode (**manual / programmed sewing**).
- The function keys **3** below the display are used to switch the appropriate functions on or off, depending which key is selected, or to change the values of the appropriate setting range (**A, B, C or D**).

7.09.01 Selection keys

The functions of the selections keys **2** are described in detail below:



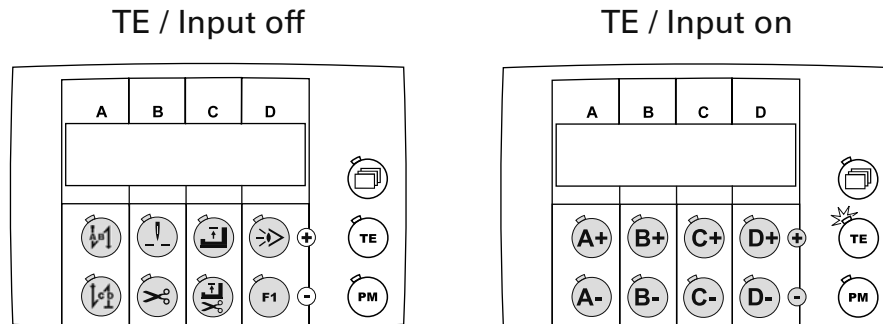
Scrolling

- This selection key is used to change between the different menus shown on the display. The selection of the menu and the setting values shown depend on the selection of the operating mode, also see Chapter **9.01 Manual sewing** or Chapter **9.02 Programmed sewing**.



TE / input

- This selection key is used to switch the function keys **3**, also see Chapter **7.09.02 Function keys**:
When this function is switched off (**LED off**), the appropriate sewing function can be switched on or off with the function keys **3**.
When this function is switched on (**LED on**), the set values of the appropriate setting ranges (**A, B, C and D**) can be altered.
- Error correction can be cancelled by pressing this button, see Chapter **9.03 Error Messages**.



PM / operating mode

- Press this selection key to switch between manual sewing and programmed sewing. When the LED is illuminated, the programmed sewing mode is activated.

7.09.02 Function keys

The function keys 3 described below generally have two basic functions:

- To switch the sewing function on or off (LED in the "TE/Input" key is **off**)
An activated function is always shown by the corresponding illuminated LED.
- To alter the set values shown on the display (LED in the "TE/Input" key is **on**)
Press and hold the appropriate function key to slowly change the set value shown above it. If the function key is pressed longer, the set value changes more quickly.

Description of the individual functions:



Start bartack / A+

- If the "TE / Input" key is switched off, the bartacks at the beginning of the seam (start bartacks) are switched on or off, see Chapter 9.01.02 **Entering bartack stitches**.
- If the "TE / Input key" is switched on, this function key serves as a plus function for the setting range (A).



End bartack / A-

- If the "TE / Input" key is switched off, the bartacks at the end of the seam (end bartacks) are switched on or off, see Chapter 9.01.02 **Entering bartack stitches**.
- If the "TE / Input key" is switched on, this function key serves as a minus function for the setting range (A).



Raised needle position after sewing stop / B+

- If the "TE / Input" key is switched off, the "raised needle position after sewing stop" function is switched on or off. If the function is switched on, the needle positions in t.d.c. take-up lever after sewing stops
- If the "TE / Input key" is switched on, this function key serves as a plus function for the setting range (B).



Thread trimming / B-

- If the "TE / Input key" is switched off, the thread trimmer is switched on or off.
- If the "TE / Input key" is switched on, this function key serves as a minus function for the setting range (B).



Raised foot position after sewing stop / C+

- If the "TE / Input key" is switched off, the "raised foot position after sewing stop" function is switched on or off. If the function is switched on, the sewing foot is raised after sewing stops.
- If the "TE / Input key" is switched on, this function key serves as a plus function for the setting range (C).



Raised foot position at end of seam sector / C-

- If the "TE / Input key" is switched off, the "raised foot position at end of seam sector" function is switched on or off. If the function is switched on, the sewing foot is raised at the end of the seam sector.
- If the "TE / Input key" is switched on, this function key serves as a minus function for the setting range (C).



F1 / D-

- If the "TE / Input" key is turned off, depending on the setting in parameter **205** the back-tack suppression or raise needle without trimming function can be turned on.
- If the "TE / Input" key is turned off, this function key works as minus function for setting ranges (D-).

8 Preparation



All regulations and instructions in this Instruction Manual are to be observed!
Special attention is to be paid to the safety regulations!



All preparation work is only to be carried out by appropriately trained personnel.
Before all preparation work, the machine is to be separated from the electricity supply by removing the plug from the mains or switching off the On/Off switch!

8.01 Inserting the needle

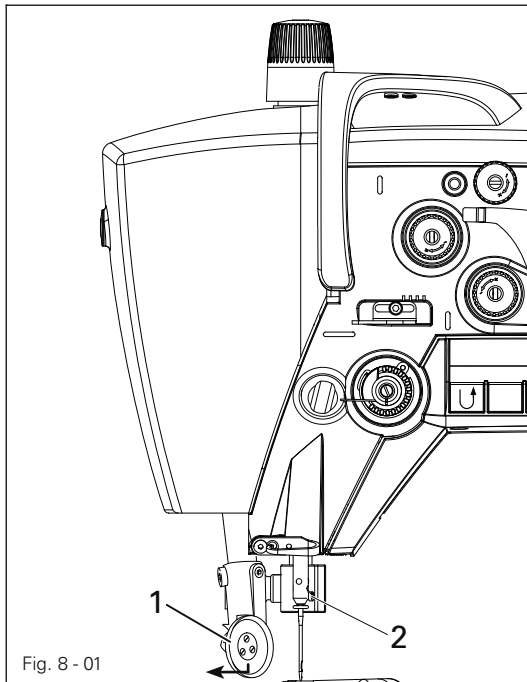


Fig. 8 - 01

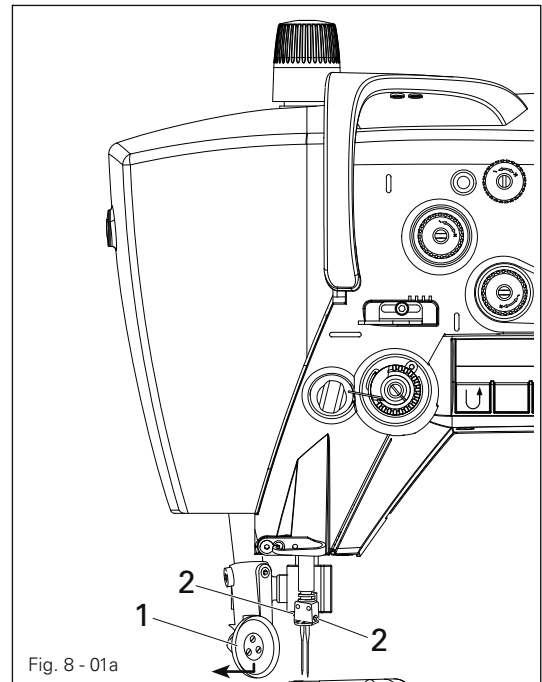


Fig. 8 - 01a



Switch off the machine!
Danger of injury due to unintentional starting of the machine!



Only use needles from the system intended for the machine,
see Chapter 3 **Specifications**.

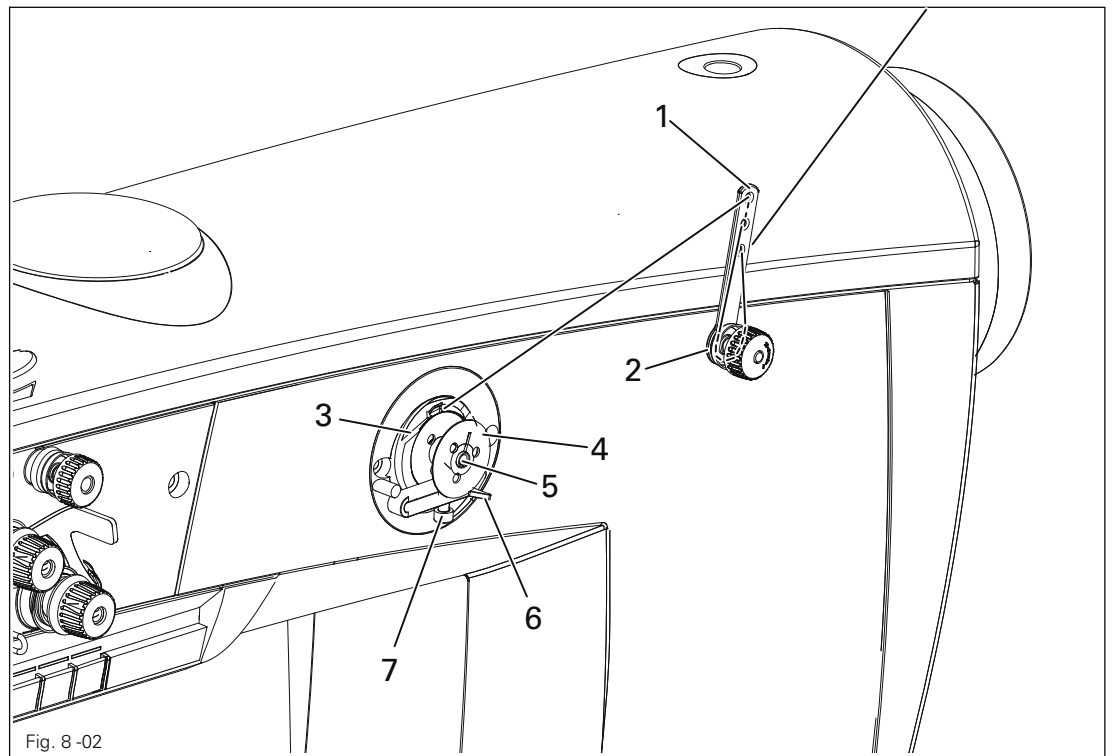
PFAFF 2571 and 2591

- Raise the roller presser 1 and swing it out.
- Loosen screw 2 and insert the needle as far as possible. The long groove must face to the right on model 2571 and to the left on model 2591.
- Tighten screw 2 and swing roller presser 1 back into position.

PFAFF 2574

- Raise the roller presser 1 and swing it out.
- Loosen screws 2 and insert the needles so that the long groove of the left needle is facing right, and that of the right needle is facing left.
- Tighten screws 2 and swing roller presser 1 back into position.

8.02 Winding the bobbin thread, regulating the winder tension



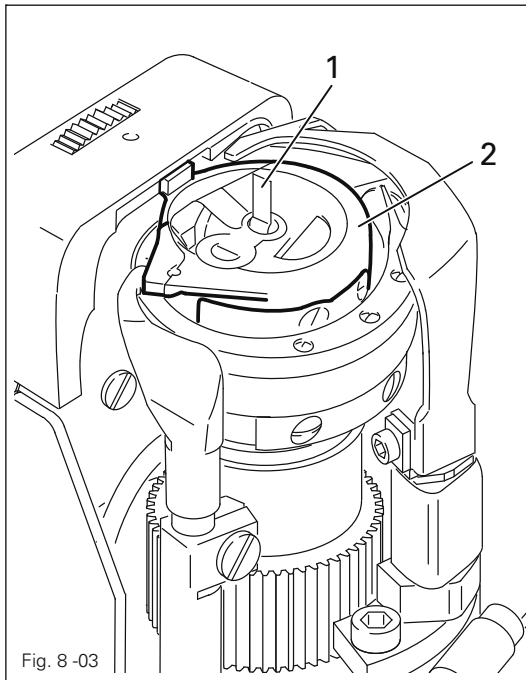
- Draw the thread from the reel stand through guide hole 1 into the bobbin winder tension unit 2 and then behind the thread clamp 3.
- Cut off the thread in thread clamp 3. The thread is retained.
- Place empty bobbin 4 on the bobbin winder spindle.
- To switch on the bobbin winder, push up lever 6.



The bobbin is wound during sewing.

- The bobbin winder stops automatically, when the bobbin 4 is filled sufficiently.
- Remove full bobbin 4 and cut off the thread in thread clamp 3.
- The tension of the thread on bobbin 4 can be adjusted on the bobbin winder tension unit 2.
- The volume of thread on bobbin 4 can be adjusted with screw 7.

8.03 Removing/Inserting the bobbin case



Switch off the machine!
Danger of injury due to unintentional starting of the machine!

Removing the bobbin case:

- Open the post cap.
- Raise latch 1 and remove bobbin case 2.

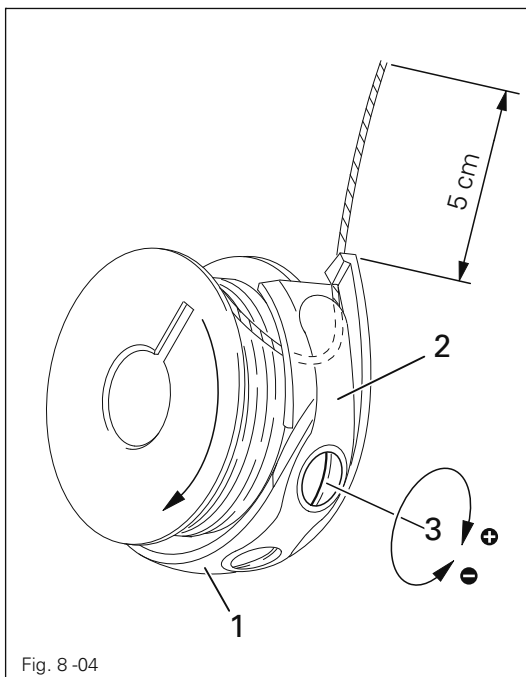
Inserting the bobbin case:

- Insert bobbin case 2.
- Close the latch and close the post cap.



Do not operate the machine with an open post cover 1!
Risk of injury from rotating clamp!

8.04 Threading the bobbin case/Adjusting the bobbin thread tension

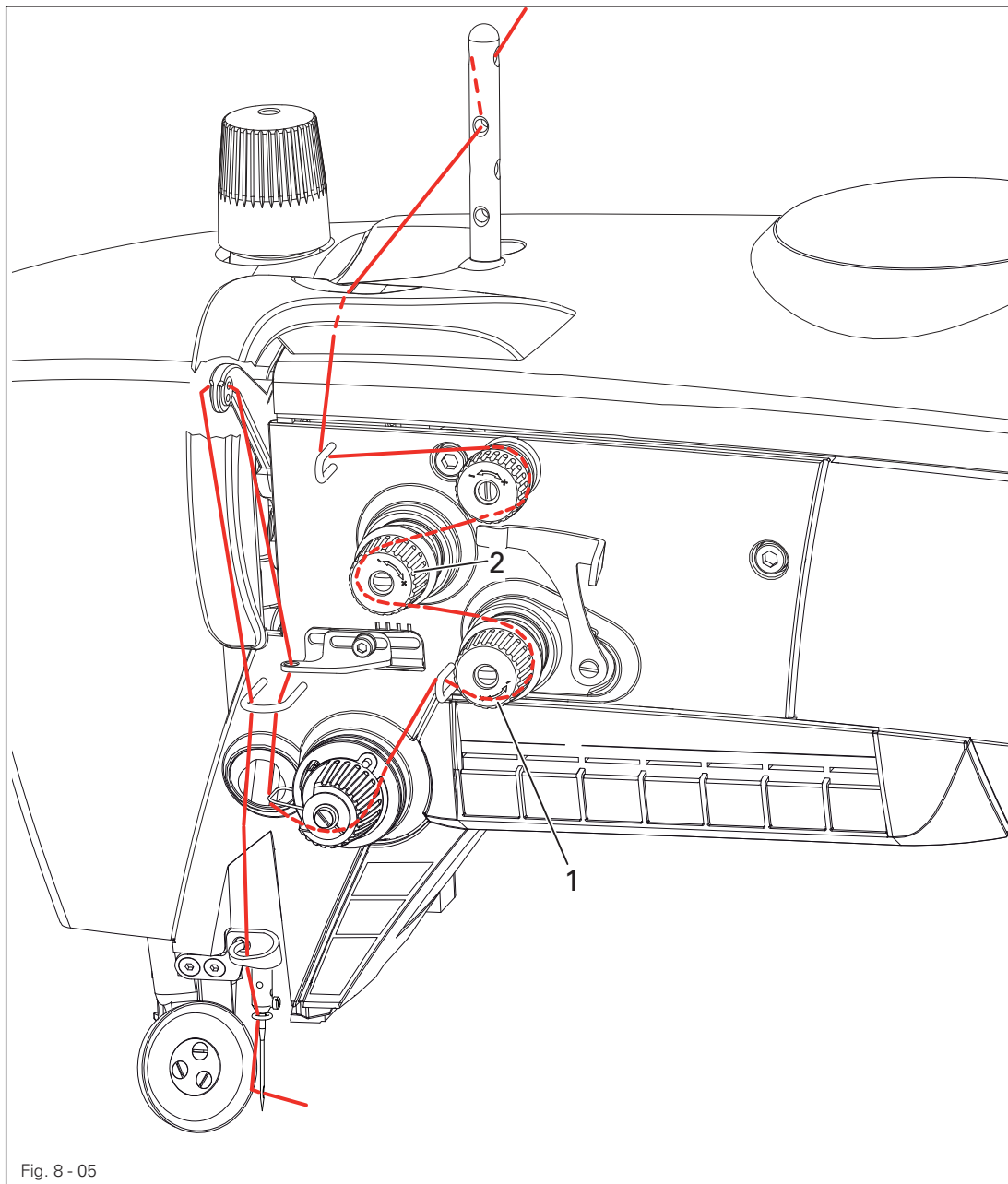


- Insert the bobbin into the bobbin case 1.
- Pass the thread through the slot under spring 2.
- Pass the thread through the notch.
- Adjust the thread tension by turning screw 3.



When the thread is pulled, the bobbin must rotate in the direction of the arrow.

8.05 Threading the needle thread and regulating its tension on model 2571 and 2591 ME

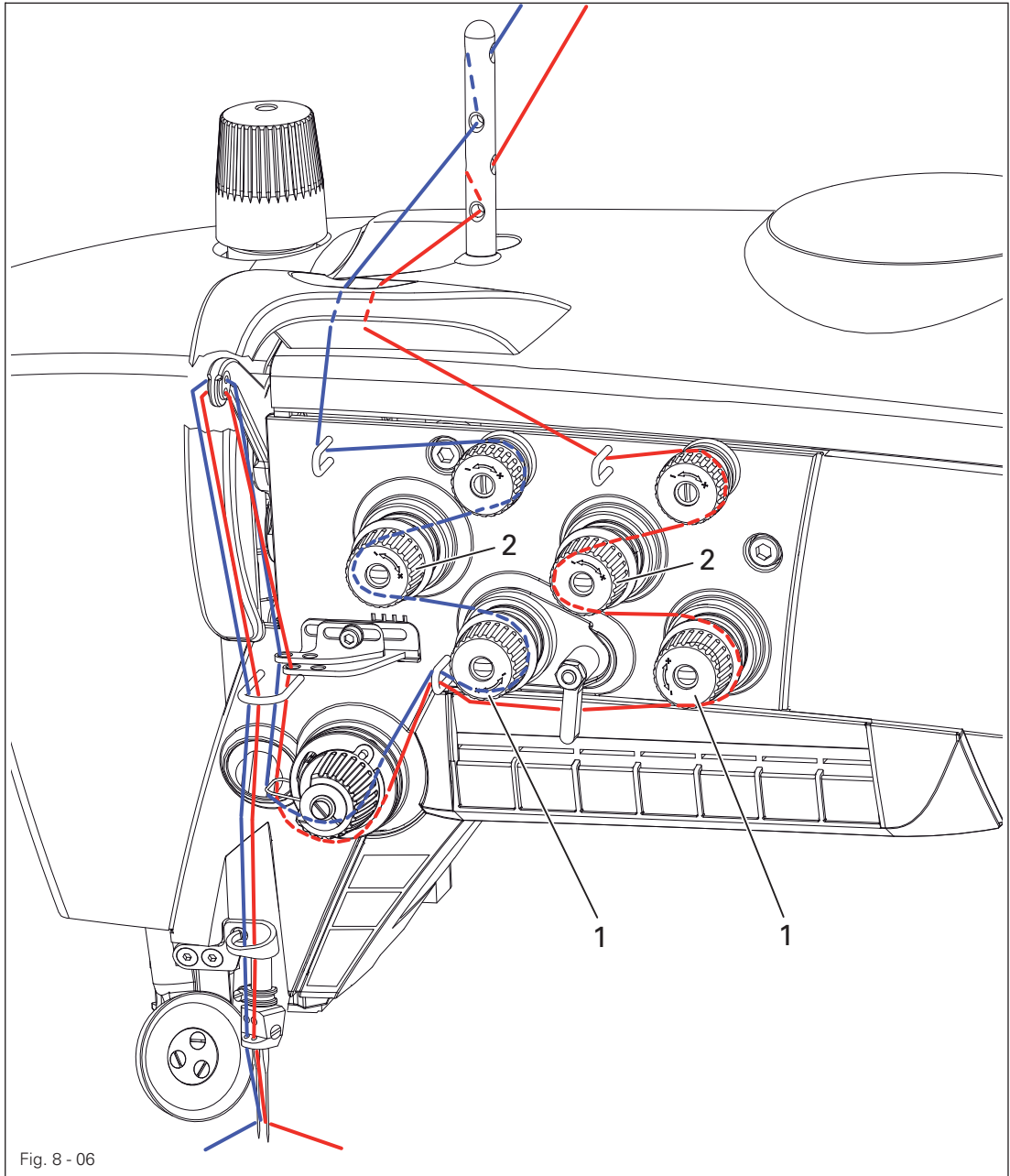


Switch off the machine!
 Danger of injury due to unintentional starting of the machine!

- Thread both needle threads as shown in Fig. 8 - 05 .
- Adjust the needle thread tensions by turning milled screws 1 and 2.

8.06

Threading the needle thread and regulating its tension on model 2574 ME



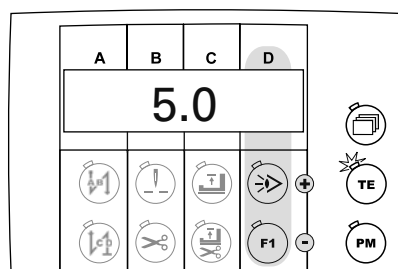
Switch off the machine!

Danger of injury due to unintentional starting of the machine!

- Thread both needle threads as shown in Fig. 8 - 06 .
- Adjust the needle thread tensions by turning milled screws 1 and 2.

8.07 Setting the stitch length

- Switch machine on
- Press this button in the menu to change stitch length setting.
- Press the "TE / Input" key (Select button **LED lights up**).



The displayed stitch length can be increased or decreased by pressing the D+ or D- buttons.

8.08 Switching the sewing functions on / off

- When the "TE / input" selection key is switched off, the sewing functions for manual sewing can be switched on or off. If a function is activated, the LED in the corresponding key is illuminated:



Start tacks on/off



Foot position raised after sewing stops on/off



End tacks on/off



Foot position raised at end of seam sector on/off



Needle position raised on/off



Light barrier on/off





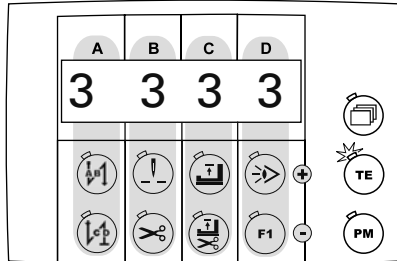
Thread trimming on/off











Function on/off

8.09 Entering start and end backtack stitches

-  ● Call up the display diagram for the start and end bartacks (if necessary, press key several times).
-  ● Switch on the "TE / input" function (LED is illuminated).



The number of bartack stitches are shown on the display, which can be altered as follows when the machine has stopped:

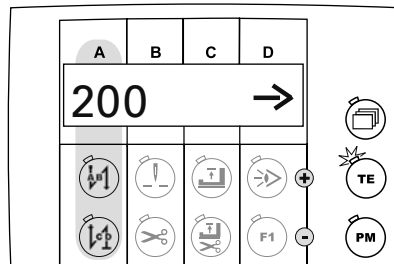
- | | | | |
|---|---|---|--|
|  | Increase the number of forwards stitches for start bartack (A+) |  | Increase the number of reverse stitches for the end bartack (C+) |
|  | Reduce the number of forwards stitches for start bartack (A-) |  | Reduce the number of reverse stitches for the end bartack (C-) |
|  | Increase the number of reverse stitches for start bartack (B+) |  | Increase the number of forward stitches for the end bartack (D+) |
|  | Reduce the number of reverse stitches for start bartack (B-) |  | Reduce the number of forward stitches for the end bartack (D-) |

8.10 Enter / change template code

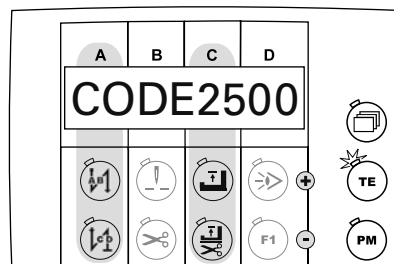
- Switch machine on.
- Call up the parameter display (press the button several times if necessary).



- Switch on "TE / Input" (LED lights up).



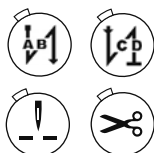
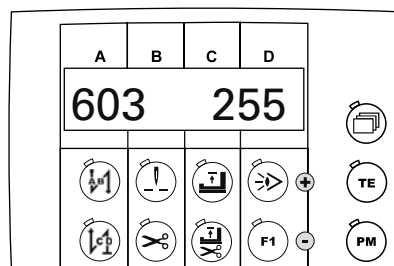
- Select parameter group 600 by pressing button A
- Press button D+Enter template code by pressing the corresponding buttons



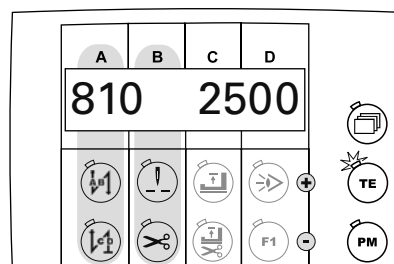
(the factory setting is code "2500").



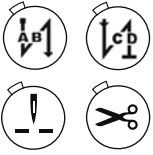
- Press the select button until the parameter level is displayed.



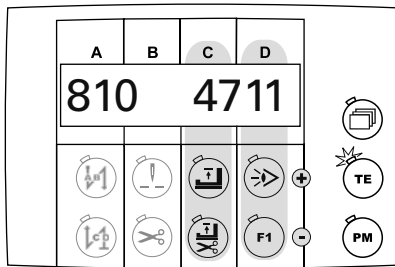
- Select parameter 810



Setting up



- Enter the desired code e.g. 4711.



- Press the select button to close entry mode.
The new code is saved.



Provided that the machine is not turned off, all parameters can be accessed without re-entering the template code.

Remember the code!

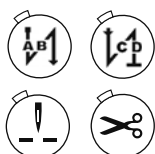
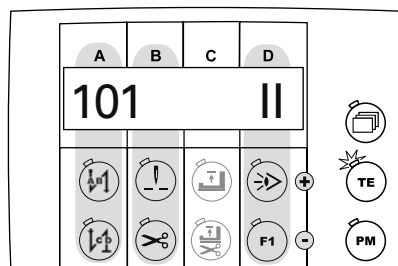
Without the corresponding code, protected functions cannot be called up!
In this case request support from the PFAFF service centre.

8.11 Bobbin thread control

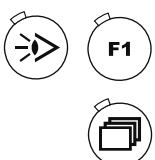
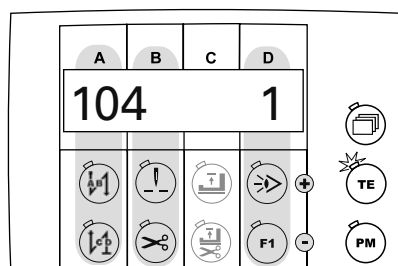


The bobbin thread control is activated by parameter "104", see **chapter 11.04** List of Parameters.

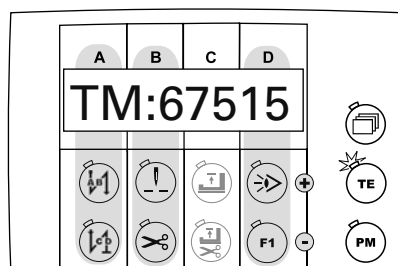
- Switch machine on.
- Call up the parameter display (press the button several times if necessary).
- Switch on "TE / Input" (LED lights up).



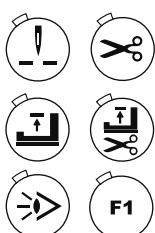
- Select parameter "104".



- Enter value "1" (bobbin thread control by stitch count).
- Scroll through to call up the following display ("TM" = Thread Monitor).



- Set the number of stitches that can be sewed with a full bobbin by pressing the corresponding function key.

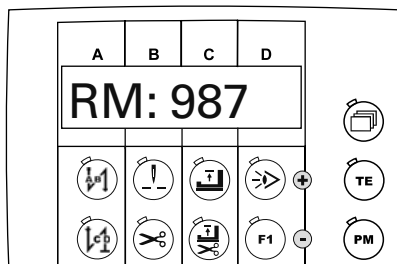


Function key to select the ten thousand digit of the parameter.

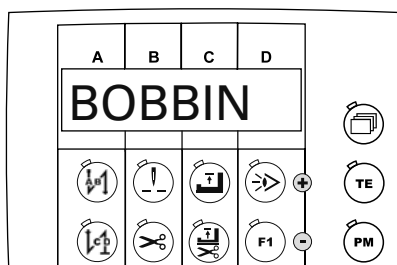
Function key to select the hundred digit of the parameter

Function key to select the tens digit of the parameter.

- TE**
- Switch off "TE / Input" (LED turns off).



- After sewing the preset quantity of bobbin thread the display shows the message "BOBBIN" after the thread trimming procedure.



- F1**
- Change the bobbin case and press "F1" button.
 - The stitch number is set to the preset value.

9 Sewing

When sewing, all settings relevant to the sewing operation will be displayed. Functions can be turned on or off by pressing the buttons, set values for the most important parameters can be changed directly.



The "PM" button is used to switch between manual sewing (button **LED off**) and programmed sewing (button **LED on**).

9.01 Manual sewing

- Switch machine on

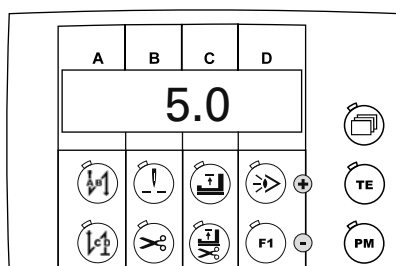


- Press the "PM" button to select manual sewing (button **LED is off**).

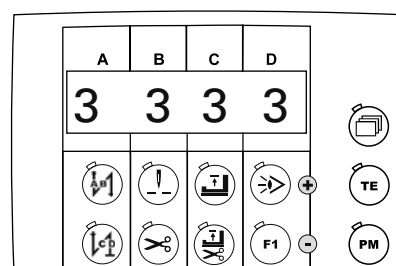


- Pressing this button will change between the following displays:

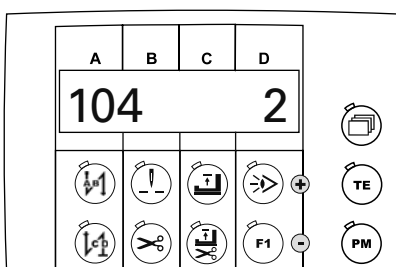
Stitch length



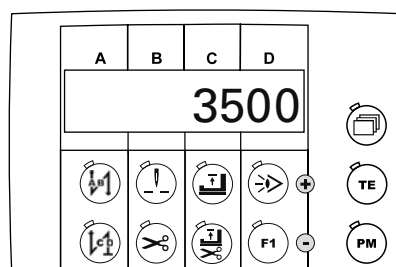
Start and end backtack stitches



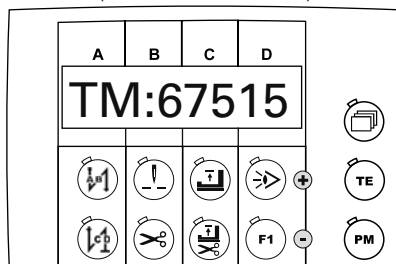
Parameter



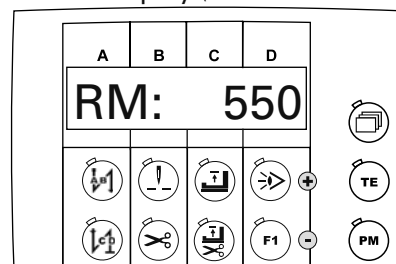
Speed



Preset remaining amount of bobbin thread ("TE" button LED on)



Remaining amount of bobbin thread display ("TE" button LED off)



When the machine is switched on the stitch length will always be displayed.

8.11 Inserting and removing the SD-memory card

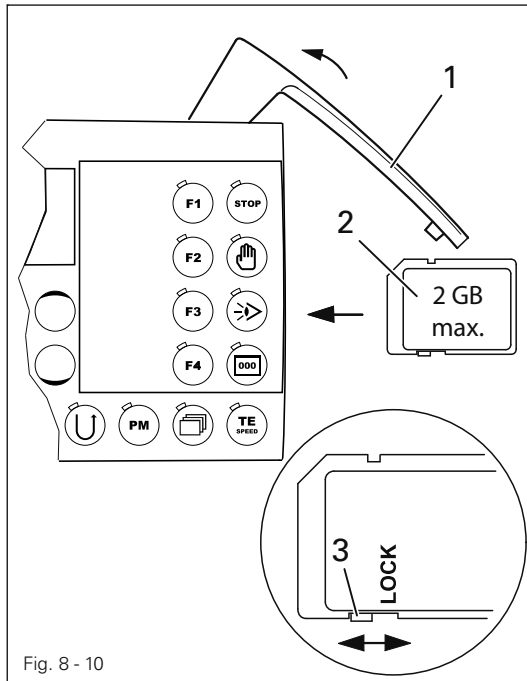


Fig. 8 - 10

Inserting the SD-memory card

- Open cover 1.
- Insert SD-memory card 2 into the card slot with the label at the front.
- Close cover 1 again.



Use only memory cards formatted FAT 16

Removing the SD-memory card

- Open cover 1.
- Press the edge of the SD-memory card 2 lightly – the SD-card is ejected.
- Close cover 1 again.



By moving slide 3 it is possible to activate (position "LOCK") or deactivate the write protection function of the SD-memory card. To store, process or delete data on the SD-memory card, the write protection function must be deactivated.

8.12 Upgrading from Version ME PLUS to Version ME PREMIUM

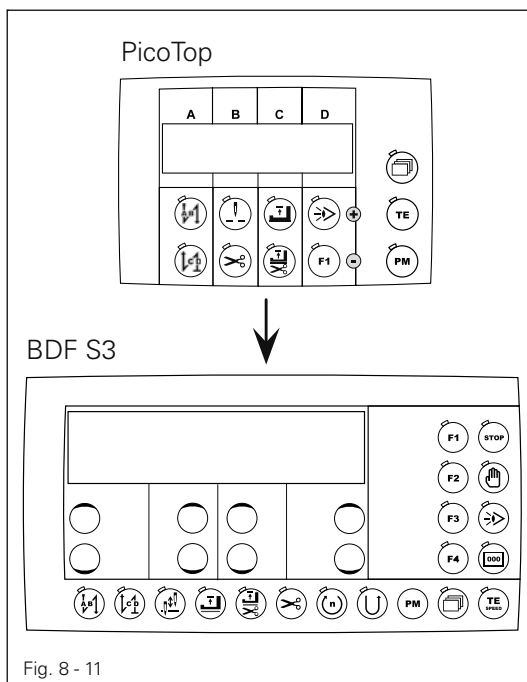


Fig. 8 - 11

- Switch machine off.
- Remove the **PicoTop** control panel.
- Attach the **BDF S3** control panel to the present carrier and connect the plug connection from the machine.
- Insert the SD card included, which has the serial number of the machine labelled, as described in chapter 8.11.
- Switch machine on.
- The machine will perform a boot process.
- Afterwards the **BDF S3** control panel can be used, as described in this instruction manual.
- Remove the SD card included again from the machine. It is read-only and is **not** intended to save programs.



Keep the SD card save for further boot operations.

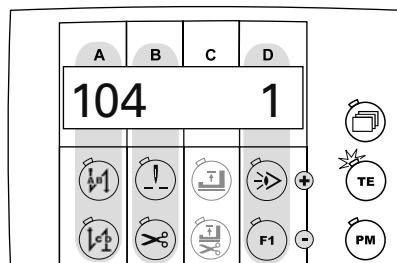
9.01.03 Selecting parameter entry



- Call up the parameter display (press the button several times if necessary).



- Switch on "TE / Input" (LED lights up).



The display will show the first parameter with the corresponding setting value. Parameters can be selected and values changed as follows:



Select the parameter hundred digit (A+)



Select the parameter ten and single digit (B-)



Select the parameter hundred digit (A-)



Decrease the parameter value (D+)



Select the parameter ten and single digit (B+)



Decrease the parameter value (D-)

- Selecting parameters and changing values, see **chapter 9.03 Parameter Entry**.

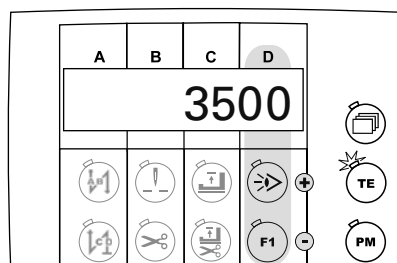
9.01.04 Selecting the maximum speed



- Call up the speed display (press the button several times if necessary).



- Switch on "TE / Input" (LED lights up).



If the machine is in standstill the maximum speed will be displayed and can be changed in hundred increments with the function key.

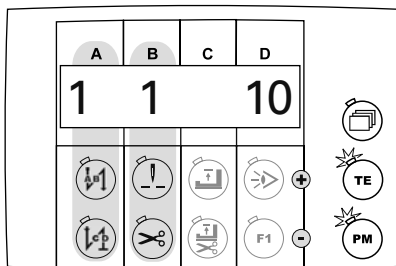
9.02 Programmed Sewing

- Switch machine on.
- Press the "PM" button to select programmed sewing (button LED is on)
- Where necessary enter the code and confirm with the select button.

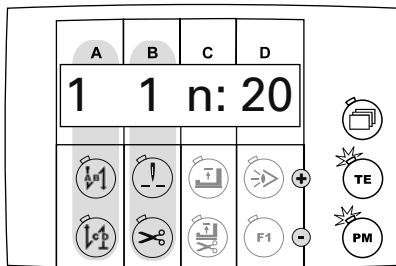


Before programmed sewing, programs must be set up (see chapter 10.01 Programming Sewing).

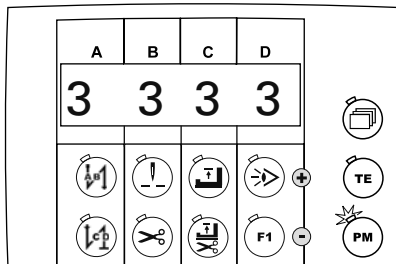
Select sewing program number (A), seam section number (B) and display seam section stitches



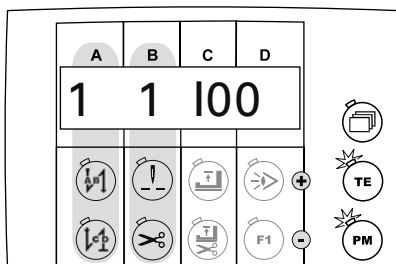
Display seam section speed limit (if activated)



Start and end backtack stitch display

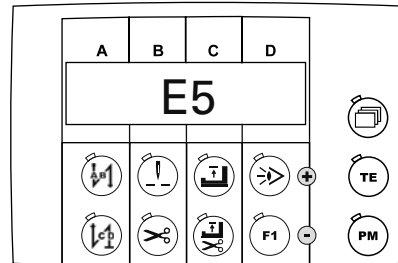


Sewing program number, seam section and special function display



9.03 Error Messages

When a fault occurs the display shows "E" together with an error code, as shown in the following example. An error message can be caused by incorrect set up, faulty elements or overloading.



- Correct the fault.
- If necessary cancel fault correction.







For a description of errors see Chapter 1.08 in the Settings Manual, **Error Codes and Description**.

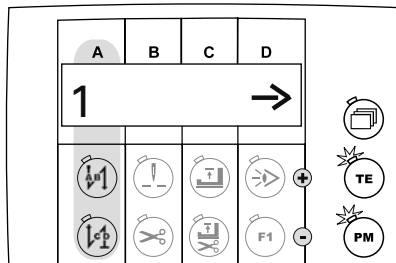
10 Input

10.01 Programming sewing

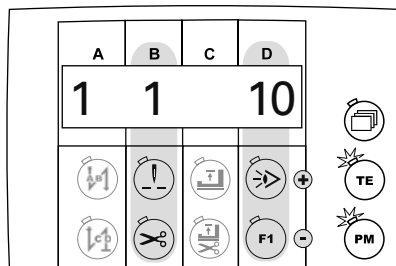


The displays given below are examples of the corresponding input options.
The input values displayed on the machine may differ.

- Switch machine on
-  ● Call up the parameter display (press the button several times if necessary).
-  ● Switch on "TE / Input" (LED lights up)
-  ● Press the "PM" button to select programmed sewing (button LED is on)
-  ● Where necessary enter the code and confirm with the select button.



- Select program number (1 - 9).
- Press button D+ to accept the program number.



- The display will show program number (A) and seam section (B).
- Enter number of stitches (D) - if the display shows - - - the stitch count is inactive.

- If the "TE / Input" key is turned **off**, sewing functions for programmed sewing can be turned on or off. If the function is turned on, the corresponding button LED lights up:



Start backtack on/off



Raise foot position after sewing stop on/off



End backtack on/off



Raise foot position at end of seam section on/off



Raise needle position on/off



Light barrier on/off



Thread trimming on/off



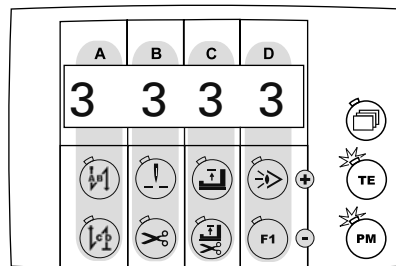
Function on/off



- To enter more program functions turn the "TE/Input" button back on (LED lights up)



- Press the select button until the display shows seam section backtack stitch input (backtacks that are not possible are not stitched).



The display will show the backtack stitch numbers, which can be changed as follows:



Increase number of start backtack forward stitches (A+). Value "0" = simpler start backtack



Decrease number of end backtack backwards stitches (C+)



Decrease number of start backtack forward stitches (A-).



Decrease number of end backtack backward stitches (C-)



Increase number of start backtack backward stitches (B+).



Decrease number of end backtack forward stitches (D+) Value "0" = simpler end backtack



Decrease number of start backtack backward stitches (B-).

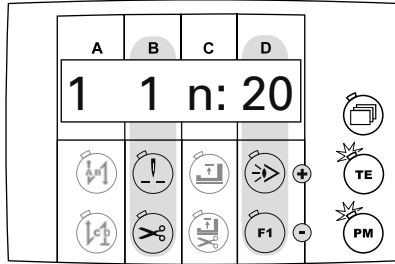


Decrease number of end backtack forward stitches (D-)

Input



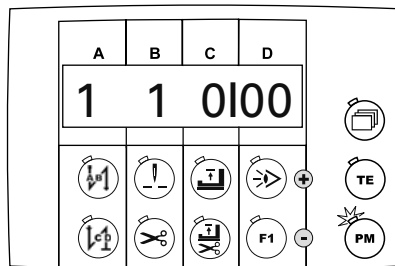
- Press the select button until the display shows seam section maximum speed input.



- Enter the maximum speed for this seam section. (Display x100)



- Press the select button until the display shows seam section special function input.



- Allocate the desired special functions (see following table) for the selected seam section with the following function keys (Setting range C + D).
- If the program that is to be created has several seam sections, the value for setting range "C" needs to be set to "0".
- To end the program the value for the setting range "C" needs to be set to "I" for the last seam section.

Position in display	Button	Function
1. Position		I - Program finishes with the current seam section 0 - further seam sections follow
2. Position		I - Turn on automatic stop at the end of seam section 0 - Turn off automatic stop at the end of seam section
3. Position		I - Seam section is stitched backwards 0 - Seam section is stitched forwards
4. Position		I - Reverse end of seam section with pedal 0 - End of seam section without pedal



- Press the "PM" button to quit program input.



- Press the select button to close entry mode.

10.02 List of parameters for control P320 / P321



The operator has free access to the "100" parameters.

Parameters "200" - "800" can only be changed after entering a code number and many only be changed by authorised personnel.

Group	Parameter	Description	Setting range	Set value
1	101	Pedal controlled start backtack (I = OFF, II = ON)	I - II	I
	102	Reverse rotation (I = OFF, II = ON)	I - II	I
	103	Placed stitch (I = OFF, II = ON)	I - II	I
	104	Bobbin thread monitoring (0 = Off, 1 = Counter)	0 - 1	1
	105	Bobbin thread counter (2500 ME PREMIUM only)	0 - 99999	12000
	106	Bobbin thread remaining counter (2500 ME PREMIUM only)	0 - 999	100
	107	Stitch length adjustment (2500 ME PLUS only)	-0,2 - +0,2 mm	0
	108	Display main processor software version		
	109	Display step motor processor software version		
	110	Display control panel software version		
	111	Display sewing drive component software version		
	112	Control panel key tone (2500 PREMIUM only), (I = OFF, II = ON)	I - II	II
	113	Control panel key tone when moving from one area to another (2500 PREMIUM only), (I = OFF, II = ON)	I - II	I
	116	Display serial number of machine	-	-
2	201	Machine configuration 8 = 2571, 2591, 9 = 2571, 2591 with photo cell, 10 = reserved, 11 = reserved, 12 = 2574 13 = 2574 with photo cell	8 - 14	8

Group	Parameter	Description	Setting range	Set value
2	202	Roller-presser field discharge (OFF = I, ON = II) I = roller-presser is lowered slowly. Should be set for high foot pressure II = roller-presser is lowered quickly. Should be set for low foot pressure	I - II	I
	203	Single stitch button assignment 1 = Single stitch, 2 = Needle up, 3 = Knee switch	1 - 3	1
	204	Half stitch button assignment 1 = Half stitch, 2 = Needle up, 3 = Knee switch	1 - 3	1
	205	Button F1 assignment (2500 ME only) (I = Backtack suppression, II = Raise needle)	I - II	I
	206	Open thread tension on stop and lift roller-presser (I = OFF, II = ON)	I - II	I
	207	Open thread tension after trimming and lift roller-presser (I = OFF, II = ON)	I - II	I
3	301	Thread carrier position t.d.c.		
		2571, 2591	0 - 127	124
		2574	0 - 191	1
	302	Needle position under b.d.c.		
		2571, 2591	0 - 127	16
		2574	0 - 191	30
	303	Thread trimmer magnet position on		
		2571, 2591	0 - 127	16
		2574	0 - 191	30
	304	Thread trimmer magnet position pulse		
		2571, 2591	0 - 127	93
		2574	0 - 191	83

Group	Parameter	Description	Setting range	Set value
3	305	Thread trimmer magnet position off		
		2571, 2591	0 - 127	113
		2574	0 - 191	173
	306	Reverse rotation position		
		2571, 2591	0 - 127	93
		2574	0 - 191	173
	307	Placed stitch position		
		2571, 2591	0 - 127	7
		2574	0 - 191	7
	308	Thread tension ventilation position		
		2571, 2591	0 - 127	30
		2574	0 - 191	160
4	401	Time delay roller-presser lift	0,01s - 1,5s	0,02s
	402	Delayed start after lowering roller-presser	0,01s - 1,5s	0,15s
	403	Set roller-presser lift (must be increased for high foot pressure)	0,01s - 0,2s	0,03s
	404	Thread trimmer magnet pulse	10 -50%	35%
5	501	Maximum speed		
		2571, 2591	100 - 3500	3500
		2574	100 - 2600	2600
	502	Start backtack speed	100 - 1500	700
	503	End backtack speed	100 - 1500	700
	504	Soft start speed	100 - 3500	1500
	505	Soft start stitch	0 - 15	0
6	601	Move roller-presser and feed wheel step motor		

Group	Parameter	Description	Setting range	Set value
600	602	Inputs: 0123456789ABCDEF (2571, 2574, 2591 PREMIUM only), 0 = Needle mid point (E16) 1 = Needle mid point (E15) 2 = Intermittent coding (E14) 3 = Free (E13) 4 = Free (E12) 5 = Free (E11) 6 = Free (E10) 7 = Free (E9) 8 = Emergency button (E8) 9 = Free (E7) A = Knee switch (E6) B = Photo cell (E5) C = Starting inhibitor (E4) D = Single stitch button on machine head (E3) E = Half stitch button on machine head (E2) F = Reverse button on machine head (E1)		
	603	Machine drive in home position see set-up-instructions	0 - 127	8 ± 2
	604	Run cold start		
	605	Stitch process with step motors by handwheel		
	606	Display speed control unit value		
7	701	P-section speed regulator		
		2571, 2591	1 - 50	30
		2574	1 - 50	20
	702	I-section speed regulator	0 - 100	50
	703	P-section position regulator	1 - 50	20
	704	D-section position regulator	1 - 100	30
	705	Time for position regulator	0 - 100	25
	706	P-section position regulator for remainder brake	1 - 50	25
	707	D-section position regulator for remainder brake	1 - 50	15
	708	Maximum torque for remainder brake	0 - 100	0
709	Minimum machine speed	3 - 64	6	

Group	Parameter	Description	Setting range	Set value
700	710	Maximum machine speed		
		2571, 2591	1 - 35	35
		2574	1 - 26	26
	711	Maximum motor speed		
		2571, 2591	1 - 35	35
		2574	1 - 40	40
	712	Positioning speed	3 - 25	18
	713	Acceleration ramp	1 - 50	35
	714	Braking ramp	1 - 50	30
	715	Reference position		
		2571, 2591	0 - 127	10
		2574	0 - 191	35
	716	Dead man time	0 - 255	40
	717	Motor starting current	3 - 10	8
	718	Vibration filter	1 - 10	6
719	Assign direction of rotation	0 - 1	0	
720	Move positioner	1 - 2	2	
800	801	Function group 100 access authorisation (Operator level)	0 - 1	0
	802	Function group 200 access authorisation (Technician level)	0 - 1	1
	803	Function group 300 access authorisation (Sewing motor positions)	0 - 1	1
	804	Function group 400 access authorisation (Times)	0 - 1	1
	805	Function group 500 access authorisation (Counter and revolution speed)	0 - 1	1
	806	Function group 600 access authorisation (Service)	0 - 1	1
	807	Function group 700 access authorisation (Sewing motor)	0 - 1	1
	808	Function group 800 access authorisation (Access authorisation)	0 - 1	1
	809	Programming access authorisation	0 - 1	1
	810	Input access code	0 - 9999	2500

10.03 Error Messages and Description

Error	Description
E 1	System error
E 2	Sewing motor E002/BB/xxx BB = 20: Deadman 02: Position forwards 03: Position in reverse 05: Position by shortest route 09: Write parameter 10: Speed 0A: Reset stitch counter 0B: Stop after xxx stitches 30: Timeout for increasing speed 31: Timeout from uncertain positioning 32: Timeout from deadman command 33: Timeout for deleting errors 34: Timeout for emergency stop 35: Timeout for writing parameters 36: Timeout for resetting stitch counter 37: Timeout for stop command after x stitches 38: Timeout for initialisation 39: Establishing contact when turned on xxx = sewing motor control unit error byte (see Motor Errors)
E 3	Section
E 4	End of section
E 5	Pedal or half stitch button or single stitch button (on machine head) activated when machine turned on
E 6	Communication error with the step motor processor
E 7	End of ramp
E 8	Needle drive end point not found
E 9	Needle drive mid-point not found
E 10	Step motor processor error
E 11	Step motor step frequency too high
E 12	Sewing displacement error
E 13	Docu-seam system error
E 14	Incorrect program number (larger than 99)
E 15	Incorrect section number
E 16	Memory full
E 17	Incorrect stitch length
E 18	Unused
E 19	External control interface
E 20	Incorrect control
E 21	Power supply unit overloaded (24V)
E 22	Mains voltage
E 23	Power supply 24V too low

10.04 Motor Errors

Error	Description
33	Invalid parameter value
35	Communication error
36	Init not ready
37	Command overrun
64	Mains off during initialisation
65	Excess current directly after mains on
66	Short circuit
68	Excess current during operation
70	Motor blocked
71	No incremental plug
74	Incremental transducer missing for transmission/reduction
173	Motor blocked in 1st stitch
175	Interior starting error
222	Dead man monitoring

11 Care and maintenance

11.01 Servicing and maintenance intervals

Cleaning the machine.....	Daily, before starting the machine
Clean the hook compartment	Daily, several times if in continuous use
Check the oil level	Daily, before starting the machine
Greasing the bevel gears	once a year
Clean the blower air filter	as required



These maintenance intervals are calculated for the average running time of a single shift operation. If the machine is operated more than this, shorter intervals are recommended.

11.02 Cleaning the machine

The cleaning cycle required for the machine depends on following factors:

- Single or several shift operation
- Amount of dust resulting from the workpiece

It is therefore only possible to stipulate the best possible cleaning instructions for each individual case.



For all cleaning work the machine must be disconnected from the mains by switching off the on/off switch or by removing the mains plug!
Danger of injury if the machine suddenly starts up .

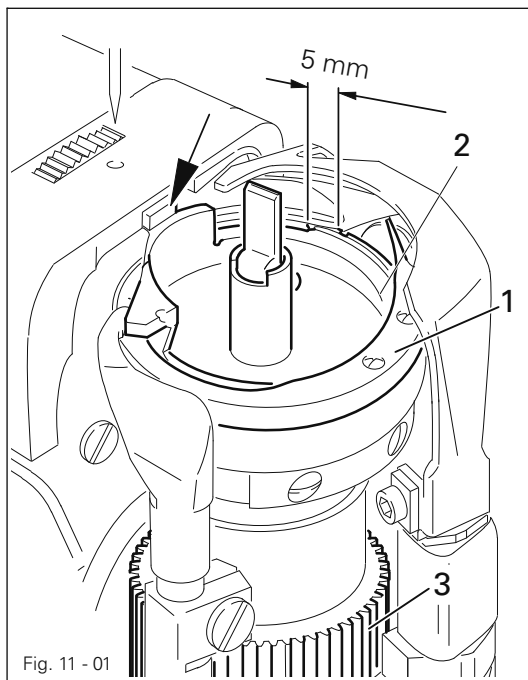


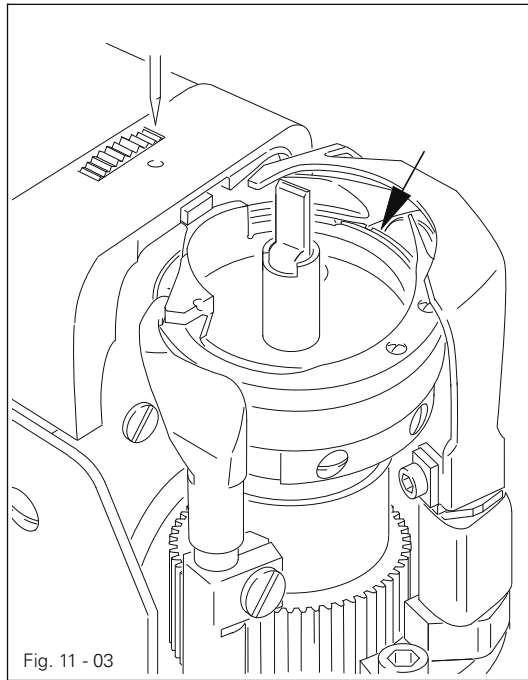
Fig. 11 - 01

- Bring the needle bar to its highest position.
- Open the post cap and remove the bobbin case cap and the bobbin.
- Unscrew hook gib 1.
- Turn the handwheel until the point of bobbin case 2 penetrates into the groove of the hook race approx. 5 mm.
- Remove bobbin case 2.
- Clean the hook race with paraffin.
- When inserting the bobbin case 2, ensure that the horn of the bobbin case 2 engages in the groove of the needle plate.
- Screw hook gib 1 back on and close the post cap.



Do not operate machine while post cap is open!
Risk of injury from rotating clamp!

11.03 Oiling the hook

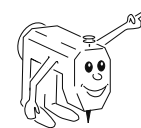


Switch the machine off!
Danger of injury if the machine is started accidentally!

- Before commissioning the machine, and after long periods out of operation, pour a few drops of oil into the hook race (see arrow).

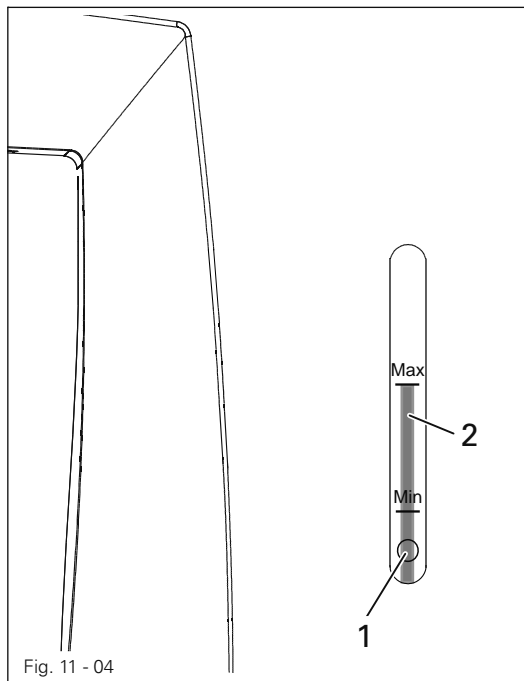


Only use oil with a mean viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40°C and a density of $0.865 \text{ g}/\text{cm}^3$ at 15°C .



We recommend PFAFF sewing machine oil, part number 280-1-120 144.

11.04 Monitoring the oil level for clamp and head pieces



- Before commissioning the machine, fill in oil through hole 1 until the oil level indicator 2 is at the "MAX" marking.
- Check the oil level daily before starting the machine!

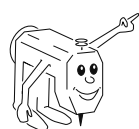


The level of the oil in indicator 2 must not sink below the "MIN" marking and not exceed the "MAX" marking.

- If required, fill oil into the tank through hole 1.

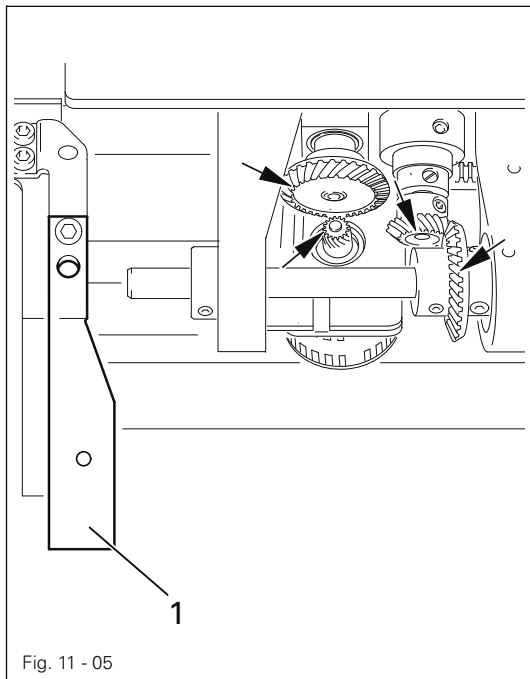


Only use oil with a mean viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40°C and a density of $0.865 \text{ g}/\text{cm}^3$ at 15°C .



We recommend PFAFF sewing machine oil, part number 280-1-120 144.

11.05 Lubricating the bevel gears



Switch the machine off!

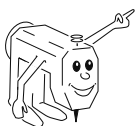
Danger of injury if the machine is started accidentally!

- All bevel gears must be supplied with new grease once a year.
- Tilt the sewing head back onto the support.
- To set the sewing head upright, press tilt lock **1** backwards and set the sewing head upright using both hands.



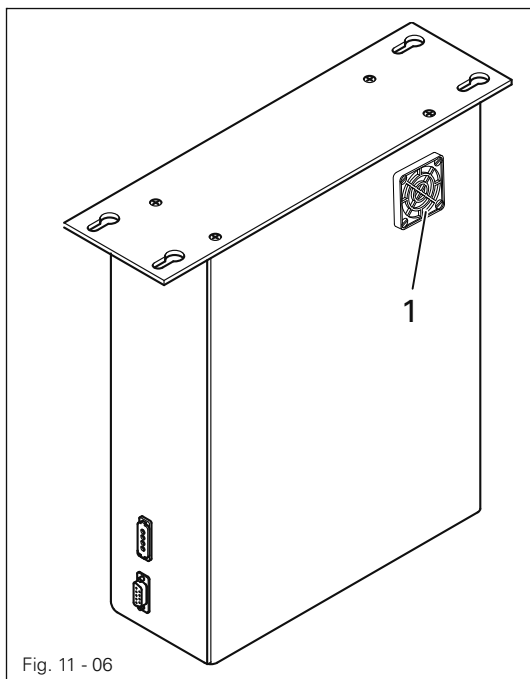
Use both hands to set the sewing head upright!

Danger of crushing between the sewing head and the table top!



We recommend PFAFF sodium grease with a dripping point of approx. **150C**, Order No. **280-1-120 243**.

11.06 Cleaning the blower air filter



- Remove cover **1**.
- Take out filter element and clean with compressed air.
- Insert the clean filter element and replace cover **1**.

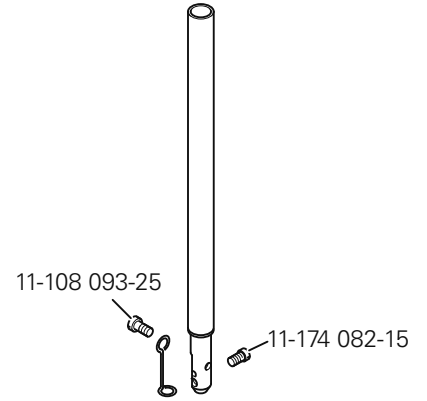
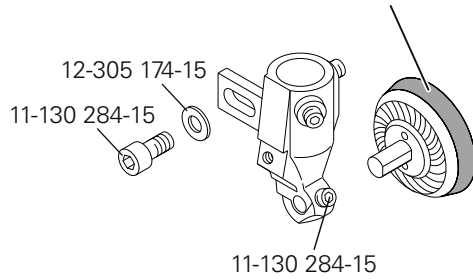
12 Wearing parts

This is a list of the most important wearing parts.

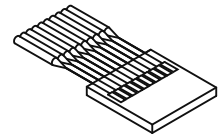
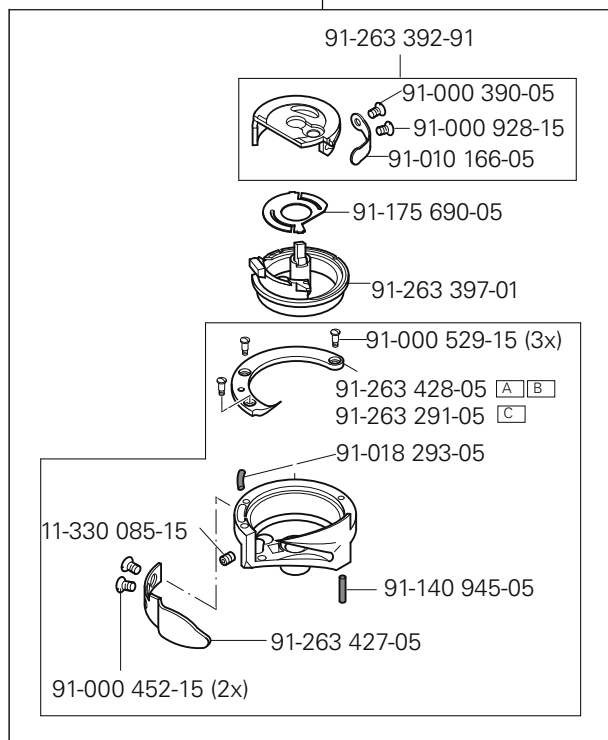
A detailed parts list for the complete machine is included with the accessories. In case of loss, the parts list can be downloaded from the internet address www.pfaff-industrial.com/pfaff/de/service/downloads As an alternative to the internet download the parts lists can also be ordered in book form under part no. 296-12-19 128.



91-164 697-93/001
(Roller presser, with 30 mm dia., 4.0 mm wide, toothed)



91-263 430-91 A B
91-263 435-91 C

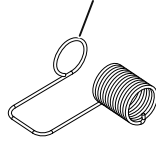


System 134 (2571 + 2591)
System 134-35 (2574)

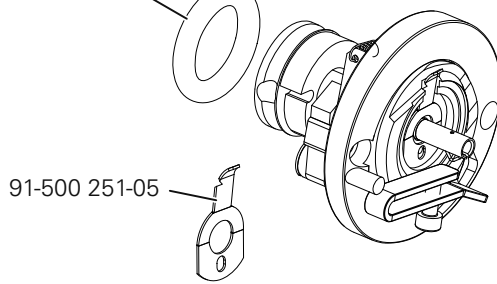


Wearing parts

91-500 460-05



99-137 520-05



91-500 251-05

Sub-class -900/81

11-130 092-15 (2x)



12-315 080-15 (2x)



11-108 846-15 (2x)



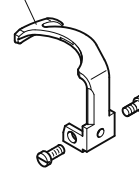
91-263 139-05



91-263 348-05



91-263 294-05



11-108 093-15 (2x)

2571-725/04

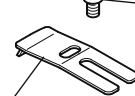


11-173 168-15



91-119 202-04/001

2591-725/04



11-130 167-15



91-011 165-04/001



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