

3566-2/02 -3/02

Instruction Manual

Software status: -2/02: 16.12.1997 Software status: -3/02: 22.06.1998

For adjustment of the sewing machine of version -2/02 use service manuals for PFAFF 563 and -900/57...

For adjustment of the sewing machine of version -3/02 use instruction manual for PFAFF 1183.



This instruction manual applies to all versions and subclasses listed in the chapter on "Specifications."

Reprinting, copying or translation of PFAFF instruction manuals, whether in whole or in part, is not permitted without our prior approval and not without written indication of the source.

G.M. PFAFF Aktiengesellschaft

Postfach 3020 D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

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1.01 Regulations

This machine has been made according to the European regulations indicated in the conformity and manufacturer's declarations.

In addition to this instruction manual, please also observe all generally accepted statutory and other legal requirements, including those of the user's country, and the valid pollution control regulations!

The regionally valid regulations of the social insurance institution responsible for occupational accidents, or other supervisory authorities, must be strictly adhered to!

1.02 General notes on safety

- The machine must only be operated when the instruction manual has been fully read and understood, and only by operators who have had the necessary training!
- All notes on safety and the instruction manual of the motor manufacturer must be read before the machine is put into operation!
- All notices on the machine referring to danger and safety must be observed!
- The machine must be used for the purpose it is intended for and must not be operated without its safety devices; all regulations relevant to safety must be adhered to.
- When part sets are changed e.g. needle, presser foot and needle plate), during threading, when the workplace is left unattended and during maintenance work, the machine must be isolated from the power supply by pressing the on/off switch or removing the plug from the mains!
- Daily maintenance work must only be carried out by appropriately trained persons!
- Repairs and special maintenance work must only be carried out by qualified technical staff or persons with the appropriate training!
- Work on the electrical equipment must only be carried out by technical staff who are qualified to do so!
- Work on parts or equipment connected to the power supply is not permitted!
 The only exceptions to this are specified in regulations EN 50110.
- Conversion or modification of the machine must only be carried out under observation of all relevant safety regulations!

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Only spare parts which have been approved by us are to be used for repairs!
 We draw special attention to the fact that spare parts and accessories not supplied by
 us have not been subjected to testing nor approval by us.
 Fitting and/or use of any such parts may cause negative changes to the design
 properties of the machine. We shall not accept any liability for damage caused by the
 use of non-original parts.

1.03 Safety symbols



Danger!
Special points to observe.



Danger of injury to operating or technical staff!

1.04 Important notes for the user

- This instruction manual is part of the equipment of the machine and must be available
 to the operating staff at all times.
 The instruction manual must be read before the machine is operated for the first time.
- Both operating and technical staff must be instructed on the safety devices of the machine and on safe working methods.
- It is the duty of the user to operate the machine in perfect running order only.
- The user must ensure that none of the safety devices are removed nor put out of working order.
- The user must ensure that only authorized persons operate and work on the machine.

For further information please refer to your PFAFF agency.

1 - 2 **PFAFF**

1.05 Notes for operating and technical staff

1.05.01 Operating staff

Operating staff are the persons responsible for setting up, operating and cleaning the machine and for removing any disturbances in the sewing area.

The operating staff must be sure to observe the following items:

- always observe the notes on safety in this instruction manual in their work!
- refrain from any working methods which adversely effect the safety of the machine!
- avoid wearing loose clothing or jewelry such as necklaces or rings!
- also make sure that only authorized persons are allowed near the danger area of the machine!
- immediately report to the user any changes to the machine that may affect its safety!

1.05.02 Technical staff

Technical staff are persons who have been trained in electrical engineering, electronics, pneumatics and mechanical engineering. They are responsible for lubricating, servicing, repairing and adjusting the machine.

The technical staff must be sure to observe the following items:

- always observe the notes on safety in this instruction manual in their work!
- press the on/off switch before carrying out adjustment and repair work, and ensure it cannot be switched on a gain unintentionally!
- never work on parts or equipment still connected to the power supply! Exceptions to this are only permissible according to regulations EN 50110.
- replace all safety covers after carrying out maintenance or repair 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 slung out of the machine!

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Proper use

2 Proper use

The PFAFF 3566-2/02 and the PFAFF 3566-3/02 is a mechanised sewing unit for sewing darts and waistband pleats with or without basting seam.



Any use of this machine which is not approved by the manufacturer shall be considered as improper use! The manufacturere shall not be held liable for any damage arising out of improper use! Proper use shall also be considered to include compliance with the operation, adjustment, service and repair measures specified by the manufacturer!

2 - 1 **PFAFF**

3 Specifications ▲

Sewing head 3566-3/02: Stitch type: Maximum speed: Stitch lengths:	
<u>.</u>	
Maximum dart depth:	
Table height:	
-	brushless DC motor
•	approx. 1320 VA single-phase 230V, 50/60 Hz
5.	6 bar ~ 1 litre/per work cycle (20 to 25 litres/min.)
Noise level at workplace: at a speed of 4,500 s.p.m.:	L _{pA} <77 dB(A) 45636-48-A-1)
Breadth:	
	~ 223 kg ~ 373 kg

[▲] Subject to technical alterations

PFAFF

Disposal of the machine

4 Disposal of the machine

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



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

4 - 1 **PFAFF**

Transportation, packing and storage

5 Transportation, packing and storage

5.01 Transportation to the customer's premises

Within the Federal Republic of Germany, complete machines (with table and motor) are delivered without packing.

Machines without table (sewing heads only) and machines intended for exports are packed.

5.02 Tansportation inside the customer's premises

The manufacturer cannot be made liable for transportation inside the customer's premises nor to other operating locations.

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 after that 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.

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Explanation of symbols

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

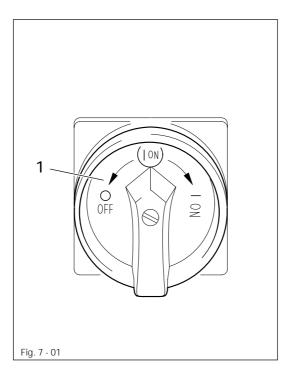


Maintenance, repairs, adjustment, service work (only to be carried out by technical staff)

6 - 1 **PFAFF**

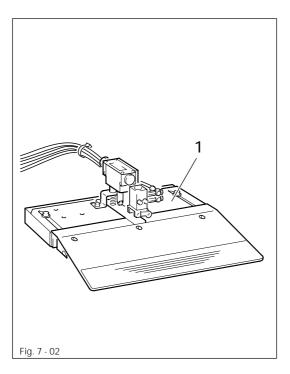
7 Controls

7.01 On/off switch



• The power supply to the machine is switched on or off by turning switch 1.

7.02 Foot switch



The following functions are carried out by pressing the pedal 1:

Position 1: Engage dart blade Position 2: Start sewing



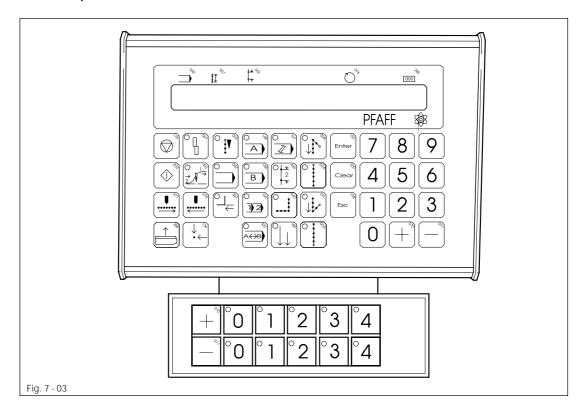
If the machine is equipped with loading plate
No. 95-752409-70/895, there is no foot switch.

Loading of the workpiece and sewing start are then triggered by pushing the feed table in by hand.

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Controls

7.03 Control panel

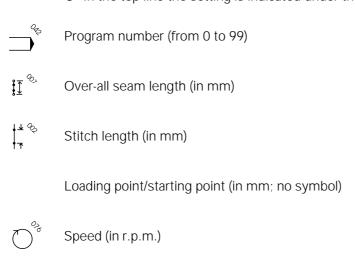


7.03.01 Control panel displays

Piece counter

000

• In the top line the setting is indicated under the symbol concerned.



• In the bottom line of the display different texts are shown (e.g. input prompts, error signals, etc.). At the side of symbol # the text number of the indicated text is shown (the text number serves for clear definition in the different languages).

7 - 2 **PFAFF**

7.03.02 Mode keys

It is possible to select two different modes on the control panel. The selected mode is indicated by the luminous diode in the corresponding key.



SEWING mode



INPUT mode



Only certain functions can be enabled within each of the selected modes. The red function keys are enabled in the SEWING mode, and the green ones in the INPUT mode.

7.03.03 Programming station keys

These keys have a function both in the **SEWING** mode and in the **INPUT** mode.

These keys are used for choosing between two programs.

The program station currently active is indicated by the luminous diode in the key.



Program station A

Select program station A



Program station B

Select program station B

7.03.04 Blue function key



This key is for enabling an optional positioning stop which is not available yet.

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Controls

7.03.05 Red function keys

These keys only function in the **SEWING** mode.



Stop program

Interrupt sewing program



Start program

Start sewing program.

Continue program after interruption.



Cycle seam pattern forwards

Cycle seam pattern forwards step by step.

Used with the **program key** this starts an automatic cycle of the seam.



Guide blade

Extend/retract guide blade.



Reset key

Verify removal of error.



Threading aid

This function serves to assist threading of the needle thread.

- Work-holder bar and presser foot are raised.
- Sewing start is inhibited.



Cycle seam pattern backwards

Cycle seam pattern backwards step by step.

Used with the **program key** this starts an automatic cycle of the seam.



Basic position

The machine is set at its basic position.

7.03.06 Green function keys

These keys only function in the INPUT mode.



Program selection

When this function is enabled (diode lights up) a stored program can be selected using the number keys or the plus/minus keys.



Automatic station change

When this function is enabled (diode lights up) the program station is changed automatically from A to B after every sewing cycle.



Seam-pattern programming

When this function is enabled (diode lights up) a seam pattern can be made up or edited. See Chapter 10.05 Making up and editing seam patterns.

7 - 4 **PFAFF**

$ \begin{bmatrix} $	Basting stitch seam When this function is enabled (diode lights up) an additional basting seam is sewn.
	Angular seam When this function is enabled (diode lights up) an angular seam is sewn, i.e. a seam that is not parallel with the end of the fabric.
	Engaging depth When this function is enabled (diode lights up) up to 40 mm is added to the engaging depth of the guide blade at present in use.
	Start backtack When this function is enabled (diode lights up) a backtack is sewn.
	Stitch condensation at beginning of seam When this function is enabled (diode lights up), condensed stitches are sewn at the beginning of the seam.
	Finish backtack When this function is enabled (diode lights up) a finish backtack is sewn.
	Stitch condensation at end of seam When this function is enabled (diode lights up), condensed stitches are sewn at the end of the seam.
Enter Enter	Enter key This key is for verifying the input settings and dialogs (access to functions).
Clear	Clear key For resetting input values.
Esc	Esc key For interrupting functions without verifying inputs (reversing menus).
+	Plus key For increasing input values step by step, for answering dialog prompts with "yes" and for scrolling through the menu guide.
(<u> </u>	Minus key For decreasing input values step by step,

Number keys

These serve to input values and select menu functions direct.

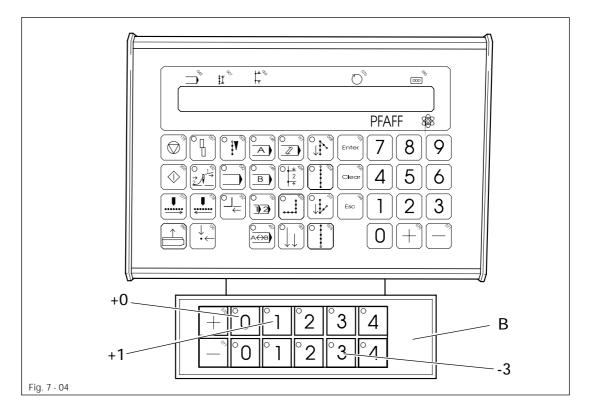
PFAFF 7 - 5

for answering dialog prompts with "no" and for scrolling backwards through the menu guide.

7.04 Control panel for quick-change of engaging depth



Control panel 1 only functions in the basic position of the machine and in the SEWING mode.



Control panel B is used for increasing or decreasing the engaging depth of the guide blade in steps of 0.3 mm each for adaption to different material thicknesses (see also Chapter 10.06.02 Correcting the engaging depth). The selected change of engaging depth is indicated by the luminous diode of the corresponding key.

Examples:

- Key +0 pressed: the engaging depth input in the seam program is used.
- Key +1 pressed: engaging depth of 0.3 mm is added to the depth input in the seam program.
- Key –3 pressed: engaging depth of 0.9 mm is subtracted from the depth input in the seam program, provided an engaging depth of higher than 0.9 is input.



The plus/minus keys of control panel 1 have no function.

7 - 6 **PFAFF**

Installation and commissioning

8 Installation and commissioning

After unpacking, check the machine for transit damage. If any damage is found, report this to the forwarding agent and to the PFAFF agency responsible.



The machine must only be installed and commissioned by qualified personnel! All relevant safety regulations must be strictly adhered to!

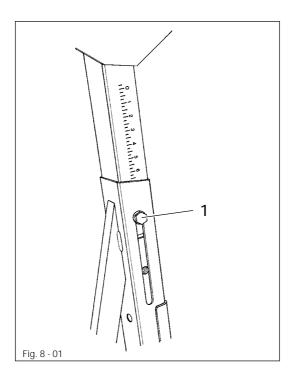


On machines put into operation for the first time, or after longer periods of storage, it is imperative to check the oil feed (see **Chapter 12 Care and Maintenance**).

8.01 Installation

The site where the machine is installed must be provided with suitable connections for electric current and compressed air (see Chapter 3, Specifications).

It must be ensured that the standing surface of the machine site is firm and horizontal.



- Set the machine horizontal in its location.
- Loosen screw 1 at both sides and adjust the table height for standing or seated operation, as required.
- Fully tighten screw 1.

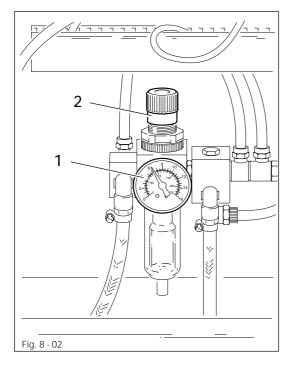
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Installation and commissioning

8.02 Commissioning



The machine must only be connected to a suitably earthed socket!

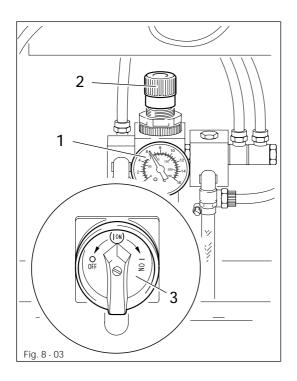


- Clean the machine thoroughly and check the electric wiring and pneumatic tubes for any damage.
- Oil the machine, or top up the oil (see Chapter 12, Care and maintenance).
- Have the machine connected to the electric mains by qualified personnel, making sure that the machine can really be used with the available mains voltage.

If there is any discrepancy, do not put the machine into operation!

- Connect the machine to the compressed air supply.
- Gauge 1 must then indicate a pressure of 6 bar.
- If necessary, adjust this setting on adjusting knob 2.

8.03 Switching the machine on or off



- Check air presure on gauge 1 and adjust pressure on adjusting knob 2 if necessary.
- Turn main switch 3 to the "ON" position.
 The machine is automatically set in the INPUT mode.
- To switch off the machine turn main switch 3 to the "OFF" position.

8 - 2 **PFAFF**

9 Setting up

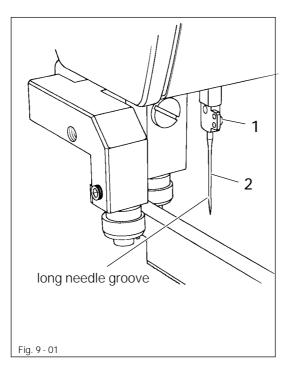


All instructions and regulations in this manual must be obserbed. Special attention must be given to all safetyl regulations!



All setting-up work must only be done by personnel with the necessary training. For all setting-up work the machine must be isolated from the power supply by turning off the main switch or removing the machine plug from the electric power socket!

9.01 Inserting the needle





Only use needle system 134 KK in sizes Nm 90, 100 or 110!

- Switch on the machine.
- Select the **SEWING** mode.



• Press the threading aid key.

The luminous diode in the key lights up, the work-holder bar and presser foot are lowered and sewing start is inhibited.

- Loosen screw 1 and insert needle 2 as shown in Fig. 9-01.
- Tighten screw 1.

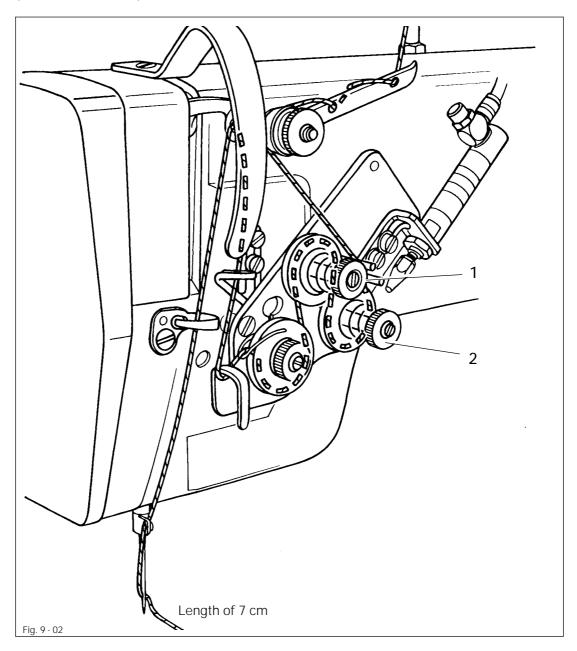


Press the threading aid key.

The luminous diode goes out, work-holder bar and presser foot are raised and the machine is ready for operation again.

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9.02 Threading the needle thread and regulating the needle-thread tension (PFAFF 3566-2/02)



Switch on machine.



• Select **SEWING** mode.



- Press threading aid key.
- Thread needle thread as shown in Fig. 9-02.
- Regulate needle thread tension by turning knurled nuts 1 and 2.



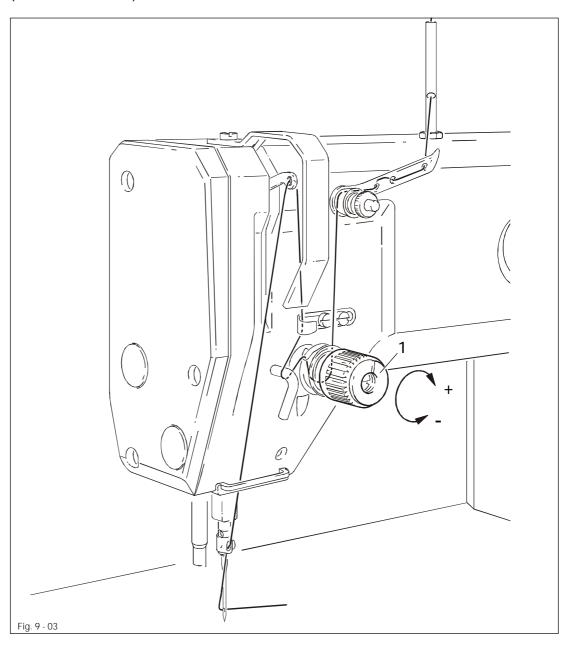
Knurled nut 1 is for regulating the basting stitch tension, and knurled nut 2 is for regulating the main tension.



Set machine ready for operation again by pressing threading aid key.

9 - 2 **PFAFF**

9.03 Winding the bobbin thread and regulating the winder tension (PFAFF 3566-3/02)



Switch on machine.



• Select **SEWING** mode.



- Press threading aid key.
- Thread needle thread as shown in Fig. 9-03.
- Regulate needle thread tension by turning knurled nut 1.

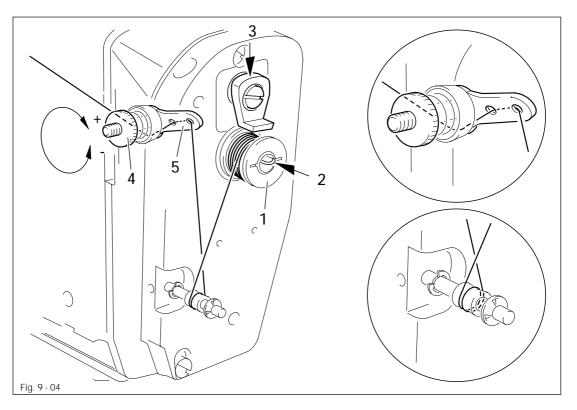


• Set machine ready for operation again by pressing threading aid key.

PFAFF 9 - 3

Setting up

9.04 Winding the bobbin thread and regulating the winder tension (PFAFF 3566-2/02)



- Place an empty bobbin 1 on winding spindle 2.
- Thread up as shown in Fig. 9-04 and wind thread clockwise a few times around bobbin 1.
- Engage bobbin winder by pressing winder spindle 2 and trip 3 simultaneously.

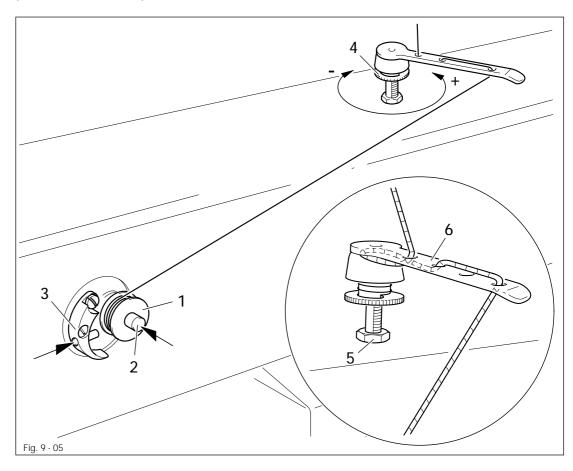


Bobbin 1 is wound during sewing.

- If thread is wound unevenly on bobbin 1, position thread guide 5 accordingly and regulate bobbin winder tension on knurled nut 4.
- The bobbin winder stops automatically when the bobbin is full.

9 - 4 **PFAFF**

9.05 Winding the bobbin thread and regulating the winder tension (PFAFF 3566-3/02)



- Place an empty bobbin 1 on winding spindle 2.
- Thread up as shown in Fig. 9-05 and wind thread clockwise a few times around bobbin 1.
- Engage bobbin winder by pressing winder spindle 2 and trip 3 simultaneously.



Bobbin 1 is wound during sewing.

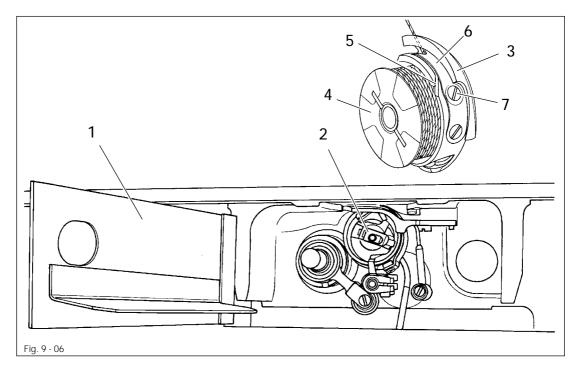
- The tension of thread on bobbin 1 is set on knurled nut 4.
- The bobbin winder stops automatically when enough thread is wound on bobbin 1.

If the thread is wound on unevenly:

- Loosen nut 5.
- Turn thread guide 6 accordingly.
- Tighten nut 5.

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9.06 Bobbin changing (PFAFF 3566-2/02)



Switch on machine.



Select SEWING mode.



Press threading aid key.

Remove bobbin case.

- Open cover 1.
- Lift latch 2 and remove bobbin case 3.

Insert bobbin in bobbin case:

- Insert bobbin 4 so that it turns clockwise when the thread is pulled.
- Hold bobbin firmly, pull thread into slot 5 and under spring 6 so that it comes out from behind the spring.
- Regulate the bobbin thread tension by turning screw 7.

Insert bobbin case:

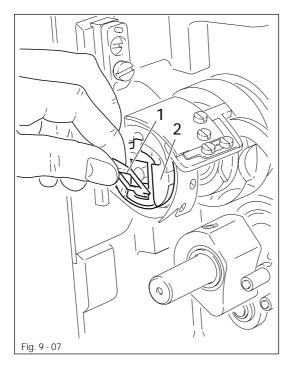
- Lift latch 2 and insert bobbin case 3 with bobbin into sewing hook.
- Release latch 2 and push bobbin case 3 lightly to make sure it snaps in place.
- Close cover 1.

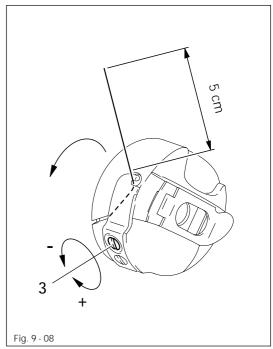


Set machine ready for operation again by pressing threading aid key.

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9.07 Bobbin changing (PFAFF 3566-3/02)





Switch on machine.



Select SEWING mode.



Press threading aid key.

Remove bobbin case.

- Open cover.
- Lift latch 1 and remove bobbin case 3.

Insert bobbin in bobbin case:

- Insert bobbin in bobbin case.
- Pull the thread through the slot and under the spring as shown in Fig. 9-08.
- Regulate the thread tension by turning screw 3.



When the thread is pulled, the bobbin must turn as shown by arrow.

Insert bobbin case:

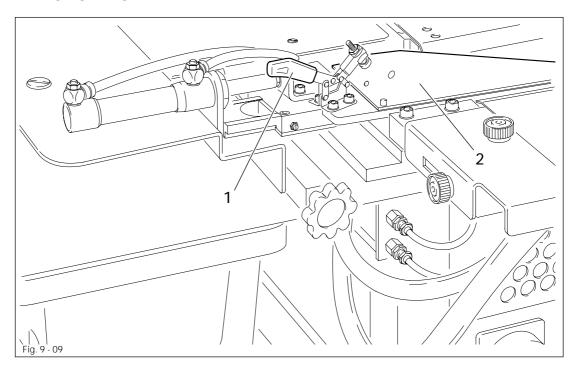
- Lift latch 1 and insert bobbin case 2 with bobbin into sewing hook.
- Release latch 1 and push bobbin case 2 lightly to make sure it snaps in place.
- Close cover.



Set machine ready for operation again by pressing threading aid key.

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9.08 Changing the guide blade

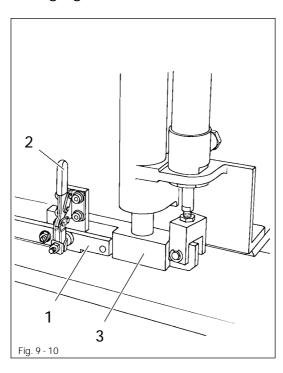




Switch machine off!

- Press lever 1 upwards.
- Remove guide blade 2.
- To insert, simply reverse this procedure.

9.09 Changing the work-holder bar



Removing the work holder bar:

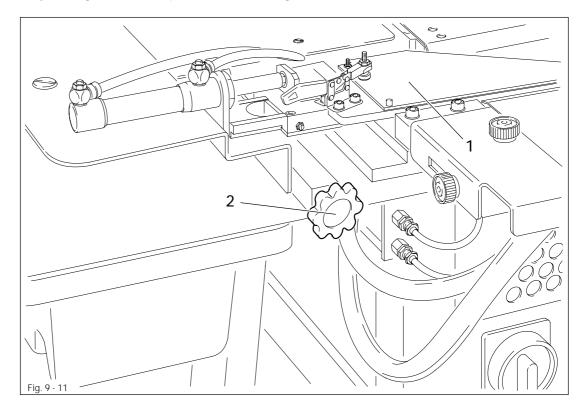
- Switch the machine on, then off again, so that work holder bar 1 is set at its basic position.
- Push lever 2 down, and remove work holder bar 1.

Refitting the work holder bar:

- Push work holder bar 1 between the front guide rollers.
- Secure work holder bar on carrier 3 and push lever 2 up.

9 - 8 **PFAFF**

9.10 Adjusting the basic position of the guide blade





The basic position of guide blade 1 can be set at five different levels in table direction, so that the blade does not have to move through its full stroke for different dart depths.

Switch on machine.



Select SEWING mode.



Press guide blade key.Guide blade 1 moves towards table.



Danger of injury!

Do not place your hands or fingers between guide blade 1 and table top!

 With guide blade key pressed, lift trip 2, move it to required position, and lower it again.



Let go of guide blade key.
 Guide blade 1 moves to selected position.

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10 Programming 10.01 Brief explanation of inputs The functions selectable in the INPUT mode are either direct functions or menu functions. Direct functions 10.01.01 Direct functions are needed frequently and can be selected direct with the corresponding key. Program station A Program station B В Program selection Automatic program change Seam pattern programming When this function is enabled, the following functions can be selected direct: Basting seam Angle seam

Engaging depth

Start backtack

Stitch condensation at beginning of seam

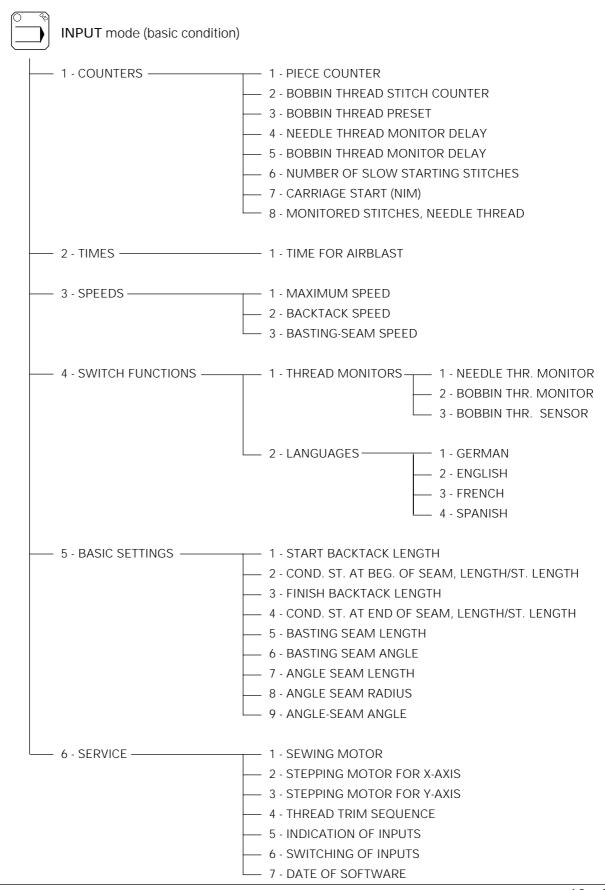
Finish backtack

Stitch condensation at end of seam

10 - 1 **PFAFF**

10.01.02 Table of functions in menu

Less frequently needed functions are located at menu level. Here the functions are subdivided into main- and part-functions.



PFAFF 10 - 2

10.01.03 Description of the menu levels



When the INPUT mode is selected, the basic condition is reached.
 Display: "SELECT FUNCTION, OR SCROLL #250"



The functions can now be scrolled using the plus/minus keys.
 e.g. Display: "SWITCH FUNCTIONS #560"



• The selected function (see display) is accessed using the **enter key**.



 The functions can also be selected by pressing the corresponding numbers on the number keys (see Chapter 10.01.02, Table of functions in menu).



• The Esc. key serves to break off selected functions (without enabling the input values) and the system returns to the next higher function.

10.02 Selecting a function in a menu

Selecting the BOBBIN THREAD MONITOR function: In this example, only the direct method of input using the **number keys** is described. The different functions can also be selected in the menu levels using the **plus/minus** keys and enabling them with the **enter key**.



Select the INPUT mode.

Display: "SELECT FUNCTION, OR SCROLL #250" (basic condition)



Press number key 4.

Display: "SWITCH FUNCTIONS #560"



• Press number key 1.

Display: "THREAD MONITORS #420 "



Press number key 2.

Display: "BOBBIN THREAD MONITOR OFF (ON:1) #589 "



Press number key 1.

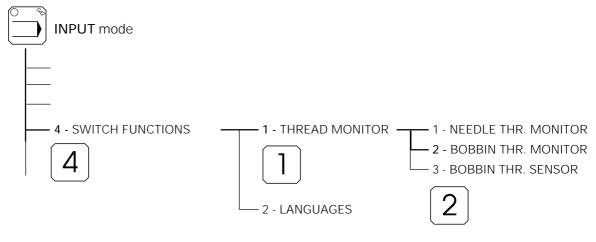
Display: "BOBBIN THREAD MONITOR ON (OFF:0) #590 "



• Press enter key.

Display: "SELECT FUNCTION, OR SCROLL #250"

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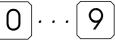
When the **INPUT** mode is selected, the BOBBIN THREAD MONITOR function can also be enabled direct by inputting number combination 4-1-2.

10.03 Explanation of the menu functions



1 - COUNTER

With this main function the user can program the counters in the part-functions according to his requirements.



Changes of the inputs are always made with the **plus/minus keys** or with the **number keys**.

1 - PIECE COUNTER



Indicates the present daily production (maximum indication: 65565).

To set the counter at zero press the clear key.

The setting is not changed when the machine is switched off. When the maximum indication is exceeded, the counter resets itself automatically.

2 - BOBBIN THREAD COUNTER

Indicates the present number of sewn stitches; when the stitch count entered in function BOBBIN THREAD PRESET is reached, this is indicated and the setting is reset to "0" automatically.



The setting is reset manually when the clear key is pressed.

3 - BOBBIN THREAD PRESET

When the preset stitch count is reached, the machine stops automatically for bobbin change at the end of the seam it is sewing. When this function is selected the input stitch count is indicated.

4 - NEEDLE THREAD MONITOR DELAY

For entering a number of stitches in which the needle thread monitor is de-activated during sewing start.

PFAFF 10 - 4

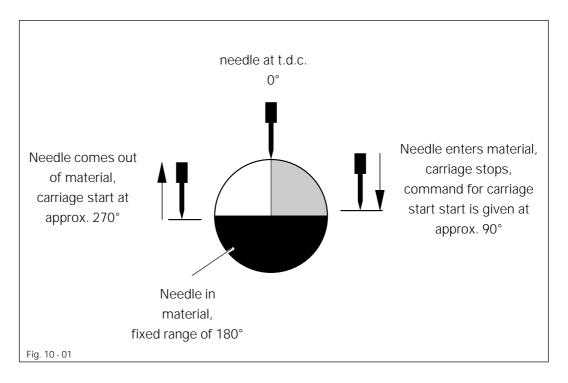
5 - BOBBIN THREAD MONITOR DELAY

For entering a number of stitches in which the bobbin thread monitor is de-activated during sewing start.

6 - NUMBER OF SLOW STARTING STITCHES

For entering the number of stitches to be made at reduced speed during sewing start.

7 - CARRIAGE START (NIM = needle in material)



The command for starting the carriage is output when the needle enters the material, but the carriage movement does not begin until the needle comes out of the material (fixed at 180° later). The timing of the output of the carriage start signal can be set from 0 to 360°.

During a basting seam the Class 3566 feeds intermittently.

8 - MONITORED STITCHES, NEEDLE THREAD

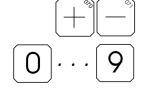
For setting the number of stitches during which a thread disturbance is to be ingnored. A low number of stitches set is equal to a high sensitivity of the needle-thread monitor.

2 - TIMES

1 - TIME FOR AIRBLAST

The duration of the airblast after thread trimming for blowing the workpiece out is set here.

The setting is changed by pressing the plus/minus keys or the number keys.



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3 - SPEEDS

In this main function a number of part-functions can be selected for changing different speeds.

The settings are changed by pressing the plus/minus keys or the number keys.



- 1 MAXIMUM SPEED
- 2 BACKTACK SPEED
- 3 BASTING-SEAM SPEED

4 - SWITCH FUNCTIONS

In this main function the user can program a number of machine functions in the partfunctions according to his requirements.

1 - THREAD MONITOR FUNCTIONS



In this part-function the thread monitor functions are listed which can be enabled or disabled using **number keys 1 or 0**.

- 1 NFFDI F THRFAD MONITOR
- 2 BOBBIN THREAD MONITOR
- 3 BOBBIN THREAD SENSOR (Optional)

2 - LANGUAGES

In this part-function different languages are listed from which the user can select the required language.

- 1 GERMAN
- 2 ENGLISH
- 3 FRENCH
- 4 SPANISH

5 - BASIC SETTINGS

When an unknown seam program is input and when the seam utilities, basting seam or angle seam are enabled, these basic settings are suggested.



The inputs for these basic settings can be changed within this part-function using the **plus/minus keys** or **number keys**.

The basic setting can also be changed later again when the seam program is input.

- 1 START BACKTACK LENGTH
- 2 COND. ST. AT BEG. OF SEAM, LENGTH/ST. LENGTH
- 3 FINISH BACKTACK LENGTH
- 4 COND. ST. AT END OF SEAM, LENGTH/ST. LENGTH
- 5 BASTING SEAM LENGTH
- 6 BASTING SEAM ANGLE
- 7 ANGLE SEAM LENGTH
- 8 ANGLE SEAM RADIUS
- 9 ANGLE-SEAM ANGLE

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6 - SERVICE

The part-functions listed in this main function serve for adjustments and tests on the machine by the mechanic.

1 - SEWING MOTOR



When this function is enabled the sewing motor can be started by pressing the **program start key** or stopped by pressing the **program stop key**.

2 - STEPPING MOTOR, X-AXIS

3 - STEPPING MOTOR, Y-AXIS



When these functions are enabled the corresponding stepping motor can be moved in the plus or minus direction using the plus/minus keys.

4 - THREAD TRIM SEQUENCE



When this function is enabled a thread trim sequence is carried out every time the **enter key** is pressed.

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5 - INDICATION OF INPUTS

When this function is enabled the conditions of the inputs are indicated from left to right. The sequence corresponds with the arrangement of the luminous diodes on the terminal strip, beginning at terminal 1.

1 = diode on (low signal) / 0 = diode off (high signal)

Terminal	Input board	Input	Input signal
1	A26	E1.1	Guide blade back
2	7120	E1.2	Guide blade forward
3		E2	Guide blade right
4		E1.3	Guide bladE middle (with feed table)
5		L1.J	free
		- 	
6		E11	Small-part stop forward
7		-	free
8		-	free
9		E20.1	Foot switch, 1st posn. (without feed table)
10		E20.2	Foot switch, 2nd posn. (without feed table)
11		E30	Basic posn., workpiece retainer (X-axis)
12		E31	Basic posn., angle seam (Y-axis)
13		E19	Work holder monitor
14		E21	Suction off (with feed table)
15		-	free
16		-	free
17		E18	Needle thread monitor
18		BOBERR	Bobbin thread error
19		V12TST	Voltage 12V in order
20		SMALL	Small parts
21		TABE	Feed table fitted
22		SMY	Stepping motor for angle seam (y-axis)
23		-	free
24		COSTEN	cold start

Programming

6 - SWITCHING OF INPUTS

In this function, after the code number is selected and verified with the enter key, the corresponding output can be selected with **number key 1** and reset with **number key 0**.

Code number	Terminal	Output board	Output	Function
8	1	A25	Y1.1	Guide blade back
			Y12	Guide blade pressure (only
				with feed table)
9	2		Y1.2	Guide blade forward
			Y1	Guide blade forward (only
				with feed table)
10	3		Y2	Guide blade right
11	4		Y3	Work holder up
12	5		Y4	Airblast on
13	6		Y5	Thread trapper on
14	7		Y6	Thread trapper up
15	8		K7	Thread trim on
				(only on PFAFF 3566-2/02)
16	9		-	free
17	10		-	free
18	11		Y10	Thread tension release on
19	12		Y11	Small-part stop back
20	13		Y13	Brake for engaging depth
				(only with feed table)
21	14		-	free
22	15		-	free
23	16		Y15	Suction on (only with feed table)
0	17		L14.1	Stepping motor, engaging depth, coil 1
1	18		L14.2	Stepping motor, engaging depth, coil 2
2	19		L14.3	Stepping motor, engaging depth, coil 3
3	20		L14.4	Stepping motor, engaging depth, coil 4
4	21		-	free
5	22		Y7	Bobbin-thread monitor reset
				(only on PFAFF 3566-3/02)
6	23		BOBRES	Reset für Unterfadenwächter
7	24		REF	Reference output for needle in
				material
				Special commands:
24	5		Y4	Airblast function (timed reset)

7 - SOFTWARE DATE

When this function is enabled, the date of the control software (CPU) is indicated.

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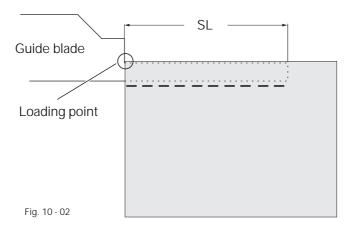
10.04 Entering the loading point

The loading point can be specified automatically or manually.

For waistband pleats, for example, the loading point can be shifted manually so that the seam end is not located at the end of the guide blade.

Example of an automatically specified loading point:

Seam length (SL) = 100 mm; loading point automatic = LP: AUT

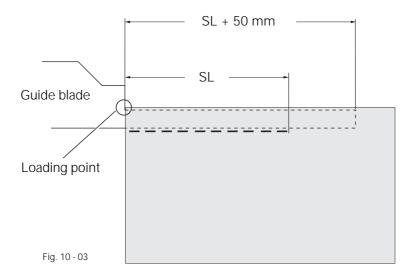


Example of a manually specified loading point:

Seam length (SL) = 100 mm, loading point manual = LP: MAN Input value = 150 mm = seam length + value for loading point shift (here 50 mm)



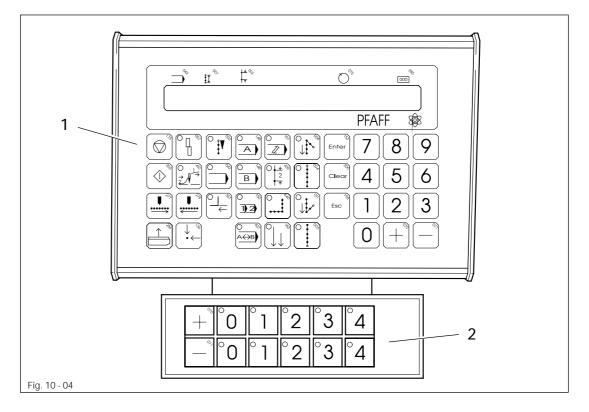
If the loading point is input manually, the length of the guide blade must correspond with the value of the input!





A manually specified loading point always stays the same when the seam length is changed; an automatically specified loading point changes with a change of seam length.

10.05 Making up and correcting a seam pattern (sequence)



In the INPUT mode a seam pattern can be made up or edited on control panel 1 using the seam input key.



Make sure that engaging quick-change 2 is set at "0", otherwise the inputs may be wrongly read or the machine may be damaged!



• Set the INPUT mode



Press the seam input key.
 The diode in the key lights up and the display prompts for the program number.



• Input the required program number using the **number keys**, e.g. 3.



Verify the input with the enter key.
 After the enter key is pressed the cursor jumps automatically to the input for setting the seam length (S-LG:).



■ Input the seam length 89 to 250 mm) using the **number keys**, e.g. 9 mm.



Verify the input with the enter key.
 The cursor jumps to the input for stitch length (S-LG:).

2 2

• Accept the basic stitch length or input a new one, e.g. 2.2 mm.

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Verify the input with the enter key.
 The cursor jumps to selection of loading point (LP: AUT).



 Select manual input of loading point, for example, by pressing the plus key. (LP: MAN).



Verify input with the enter key.



 Input the setting for the loading point according to the length of the guide blade in use (e.g. LOADING POINT: 155).



Verify input with the enter key.
 The cursor jumps to input of the starting point (STARTING POINT: 0).



Input the setting for the starting point, e.g. 0.



- Verify input with the enter key.
- Depending on the required seam pattern, start- and finish backtacks, stitch condensation at beginning and end of seam, angle seams, basting seams and n can be input using the corresponding function keys.

10.06 Examples of how to make up seams

In the following a number of examples are given to explain how to input seams for different applications.

10.06.01 Single-pointed darts

Basic guide blade size: 155 x 10 mm (length x depth).

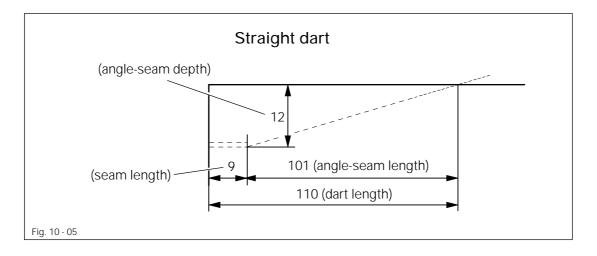
The guide blade can be used for different dart shapes and sizes. To achieve this, the depth of the guide blade must be suitable for the smallest dart depth, and its length for the longest dart length.

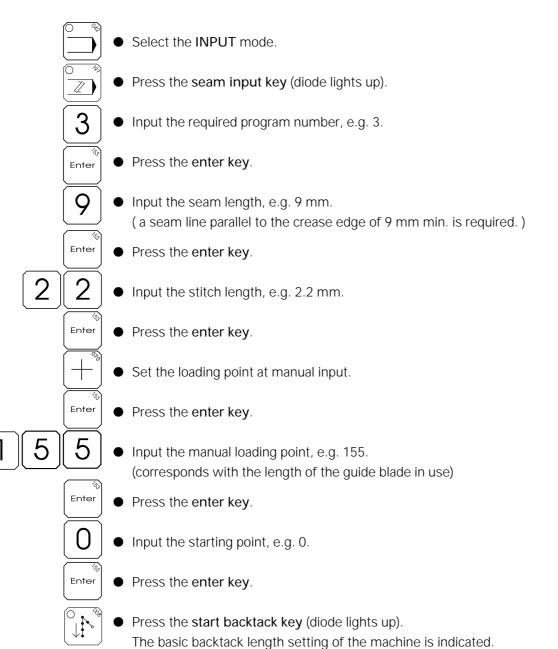
Max. dart length = length of guide blade (here, e.g.: 155 mm)

Min. dart depth = depth of guide blade + 1.5 mm (here: 11.5 mm)

Max. dart depth = depth of guide blade + 1.5 mm + 40 mm (here: 51.5 mm)

Programming





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9 •	Accept the basic setting or input a new backtack length, e.g. 9 mm.
Enter •	Press the enter key.
	Press the key for stitch condensation at end of seam (diode lights up). The cursor first jumps to the input for seam-end condensation length (ESV-LG).
12•	Input the length of stitch condensation, e.g. 12 mm.
Enter •	Press the enter key . The cursor jumps to the input for the stitch length for stitch condensation.
10•	Input the stitch length, e.g. 1.0 mm.
Enter •	Press the enter key.
	Press the engaging depth key (diode lights up). This is where the engaging depth is set, depending on the depth of the guide blade in use.
2 •	Input the setting for the engaging depth, e.g. 2 mm (for a 12 mm-deep dart with a 10 mm-deep guide blade).
Enter •	Press the enter key.
	Press the angle seam key (diode lights up). The cursor first jumps to the input for angle seam length (WLG).
	The cursor first jumps to the input for angle seam length (WEG).
101•	Input the setting according to the required angle seam length, here 101 mm. (Total length = seam length + angle seam length)
Enter •	Press the enter key . The cursor jumps to the input for angle seam depth (DEPTH).
12•	Input the preset angle-seam depth, here 12 mm.
Enter	Press the enter key . (The cursor jumps to the input for the angle.)
	The preset amount is calculated from the angle seam length and depth and can

If a curved seam is to be sewn, the preset amount must be varied considerably upwards or downwards (see Fig. 10-06).

To sew beyond the material crease line (on the chain) the preset angle must be

be used if a straight seam is to be sewn which ends at the seam crease line

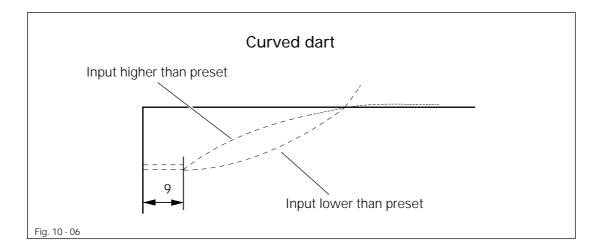
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reduced by at least 0.1 degrees.

(see Fig. 10-05).

ĵ

Programming





• Input a new angle setting, e.g. 5, in order to obtain a seam pattern corresponding with Fig. 10-06 or accept the preset amount, then

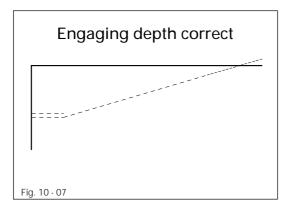


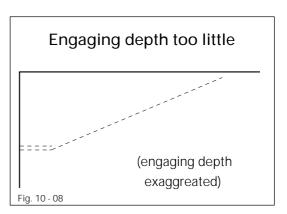
• press enter key immediately.



• The input seam pattern is accepted by selecting the **SEWING** mode.

10.06.02 Correcting the engaging depth

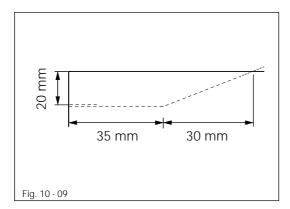


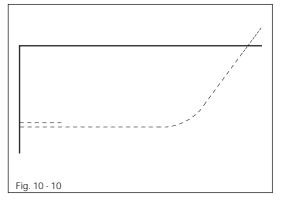


- Correction of the seam pattern in Fig. 10-08 can be made on the control panel for engaging depth quick-change from −1.2 mm to +1.2 mm.
- See Chapter 7.04 Control panel for engaging depth quick-change.

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10.06.03 Making waistband pleats





- Select the INPUT mode.
- Press the seam input key (diode lights up)
- Input the required program number.
- Input the seam length, e.g. 35 mm (Fig. 10-09).
- Input the stitch length.
- Set the loading point at manual input
- Input the loading point.
- Input the starting point
- Input a start backtack
- Input stitch condensation at the end of seam.



A backtack at the seam end is only practical if the seam does not end outside the material (e.g. as on straight pleats).

- Input the enaging depth, e.g. 10 mm (for a 20 mm deep dart with a 10 mm deep guide blade, see Fig. 10-09.
- Input the angle seam length, e.g. 30 mm (Fig. 10-09).
- Input the angle seam depth according to the preset amount, here 20 mm.
- Specify the setting for the angle, e.g. accept preset amount by pressing enter key (Fig. 10-09), or:
- Increase the amount of the angle (Fig. 10-10).

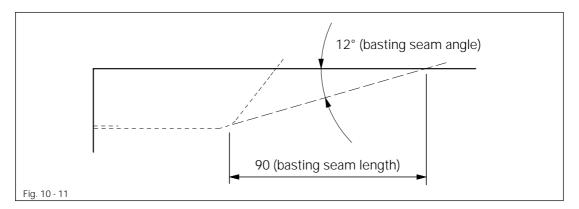


To input a curved seam line the preset angle must be increased considerably (seam test required).

• The input seam pattern is accepted by selecting the **SEWING** mode.

Programming

10.06.04 Making a waistband pleat with basting seam



To make a waistband pleat with basting seam, all settings are input as described in **Chapter 10.06.03 Making waistband pleats**.

In addition, the basting seam is input as follows.



- Press the basting seam key (diode lights up).
 The cursor jumps to the input for basting seam length.
- 9 0
 - Input the length, e.g. 90 mm.



- Press the enter key.
 The cursor jumps to the input for the angle.
- 1 2
- Input the setting for the angle, e.g. 12°.

10.07 Sequence programs (different darts/pleats in sequence)

Program numbers 90 to 99 are reserved for sequence programs. In these program numbers up to eight individual programs can be combined in one sequence and processed one after the other later in the **SEWING** mode.



• Select the INPUT mode.



Press the seam input key.



Select program number (90 to 99), e.g. 90.



Select the first required program for the sequence, 20.



Press the enter key.



Select the second required program for the sequence, e.g. 4.



Press the enter key.

and so on.



The inputs are concluded by selecting the INPUT mode.



For re-sewing, e.g. after a thread break, the required program number can be selected by pressing the **plus/minus keys**.

Sewing

11 Sewing



The machine must only be operated by personnel who have had the necessary training! Operating personnel must also ensure that only authorized persons are allowed near the danger area of the machine!



During the sewing action do not put your hands or fingers between the guide blade and the table top! Danger of injury!

11.01 Starting the sewing action

Requirement: A seam program is entered in a program station and is selected.

- Place workpiece on guide blade.
- Press foot switch to 1st position (see also Chapter 7.02 Foot switch).
 The guide blade moves in, and when the foot switch is released again the guide blade returns to its basic position to allow correction.
- Press foot switch to 2nd position.
 The sewing action runs off according to the seam program.



If the machine is equipped with a feed table, sewing is started when the feed table is pushed in by hand.

11.02 Sewing with sequence programs

Programs 90 to 99 are reserved for sequence programs, see **Chapter 10.06 Sequence programs**.



During sewing with sequence programs the program actually running is indicated in the display in brackets.

With the machine in its basic position the individual programs can be selected using the **plus/minus keys**. When sewing is started again the machine begins with the selected seam program.

11.03 Disturbances

When a thread breaks the following is indicated in the control panel display:

Display: "THREAD DISTURBANCE

#008 "

- The begun seam is sewn to the end.
- After the disturbance is removed it may be necessary to sew the seam again.

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12 Care and maintenance

Clean entire machineweekly
Clean hook area several times daily
Clean needle area several times daily
Check oil level daily, before operation
Lubricate transverse slide
Check air pressure daily, before operation
Clean filter of air filter/regulator unitas required



The maintenance intervals in the table refer to the average machine running time in single-shift operation. If machine running time is higher than this, it is advisable to shorten these intervals.

12.01 Cleaning the machine

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

- Single- or multi-shift operation
- Amount of dust caused by workpiece material

Optimum cleaning instructions can therefore only be specified for each individual case.



For all cleaning work the machine must be isolated from the power supply by turning off the main switch or removing the mains plug!

In order to prevent disturbances the following cleaning work is recommended for single-shift operation:



- Clean hook area and needle area of sewing head several times daily.
- Clean the entire machine at least once a week.

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Care and maintenance

12.02 Oiling the machine



Check the oil level in optic 1 every time before the machine is operated! Never let the oil level drop below the lowest mark!

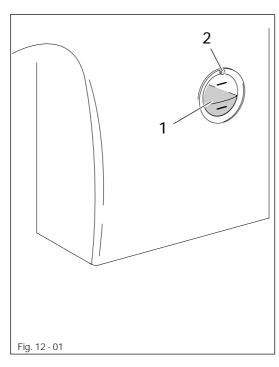


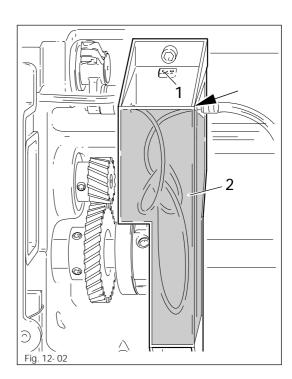
Only use an oil with a medium viscosity of 10.0 mm²/s at 40°C and a density of 0.865 g/cm³ at 15°C!



We recommend PFAFF sewing machine oil, part No. 280-1-110105.







PFAFF 3566-2/02 (Fig. 12-01)

- Check the oil level in glass 1.
- If necessary, top up the oil through hole 2.

PFAFF 3566-3/02 (Fig. 12-02)

- If required, tilt the machine over to the left.
- Top up oil through hole 1 to the front edge (see arrow) of oil tank 2.

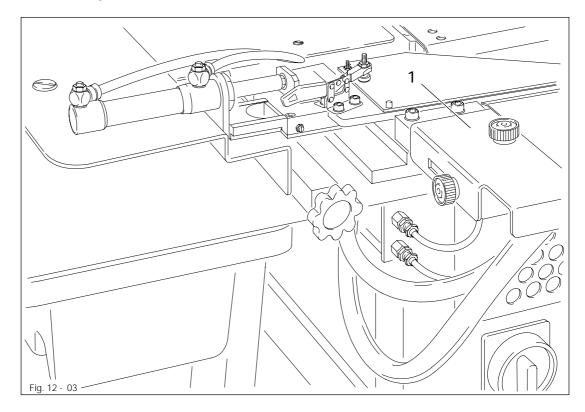


Set machine upright using both hands!

Danger of crushing between machine and table top.

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12.03 Lubricating the transverse slide





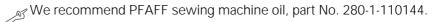
The oils used must cause little or no swelling or shrinkage of the sealing materials during different operating conditions.



Only use an oil with a medium viscosity of 22.0 mm²/s at 40°C and a density of 0.865 g/cm³ at 15°C!



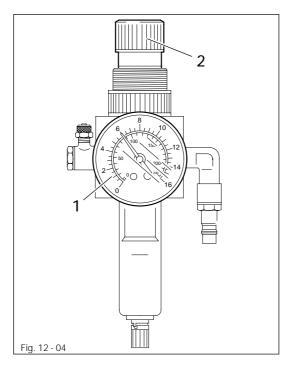
• Lubricate transverse slide 1 weeky through the four oiling holes marked red.



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Care and maintenance

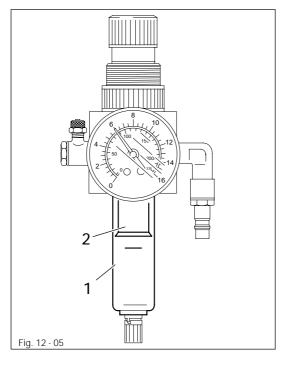
12.04 Checking and adjusting the air pressure



- Check the air pressure on gauge 1 every time before operation.
- Gauge 1 must show a pressure of 6 bar.
- If necessary, adjust to this setting.
- To do so, lift knob 2 and turn it until the guage shows a pressure of 6 bar.

12.05 Cleaning the filter of the air filter/regulator







Switch the machine off! Disconnect the air hose at the air filter/regulator unit.

Emptying water bowl 1:

 Water bowl 1 empties itself automatically when the air hose is disconnected from the air filter/regulator.

Cleaning filter 2:

- Unscrew water bowl 1.
- Take out filter 2.
- Clean filter 2 with compressed air or isopropyl alcohol (part No. 95-665 735-91).
- Screw in filter 2 and screw on water bowl 1.

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13 Making up styling parts



Style-dependent guide blades or work-holder bars are only required for machines without angle-seam system.

13.01 Making up guide blades for straight, single-pointed darts

- Fit blank for guide blade on guide blade carrier.
- Engage guide blade.
- Mark needle centre on guide blade (Fig. 13-01).
- Disengage guide blade and take out blade.
- Mark intersection "A" using two radiuses:
 - R1 = dart length (AL) + 7 mm
 - R2 = half dart length (AT) + 1.5 mm
- Scribe outer contour of guide blade according to Fig. 13-02 and cut out contour.
- Apply two radiuses R 1 mm and R 0.5 mm as shown in Fig. 13-03.
- De-burr and polish cut edges.
- Fit guide blade on guide-blad carrier.
- Program dart length + 7 mm and position work-holder bar.
- Carry out a sewing test.
- If necessary adjust guide blade on eccentric pin.

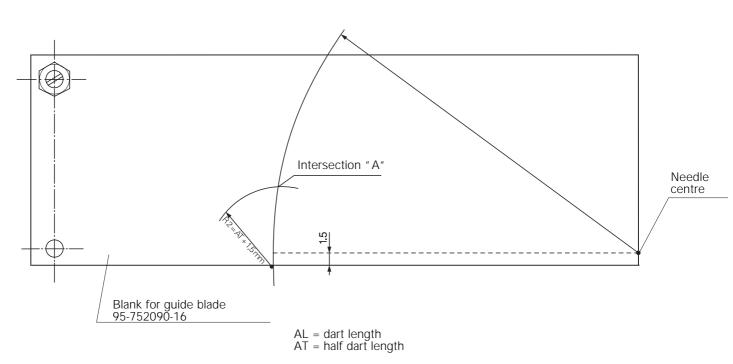


Fig. 13 - 01

PFAFF 13 - 1

Making up styling parts

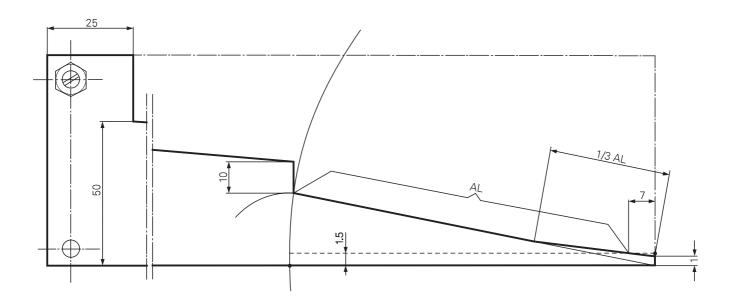


Fig. 13 - 02

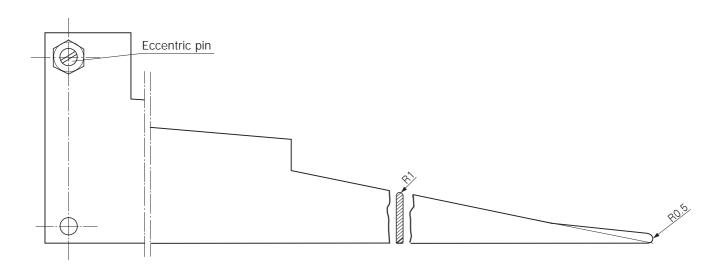


Fig. 13 - 03

13.02 Making up guide blades for curved, pointed darts

- Program dart length + 7 mm and position work-holder bar.
- Secure blank for guide blade to guide-blade carrier.
- Engage guide blade and lower work-holder bar.
- Transfer contour of work-holder bar to guide blade using a scribe (Fig. 13-04).
- Scribe an intersection 5 mm to the right from the cutout in the wrok-holder bar (Fig. 13-05).
- Disengage and remove the guide blade.
- Scribe a new line parallel and at a distance of 1.5 mm to the scribed contour of the work-holder bar (Fig. 13-06).

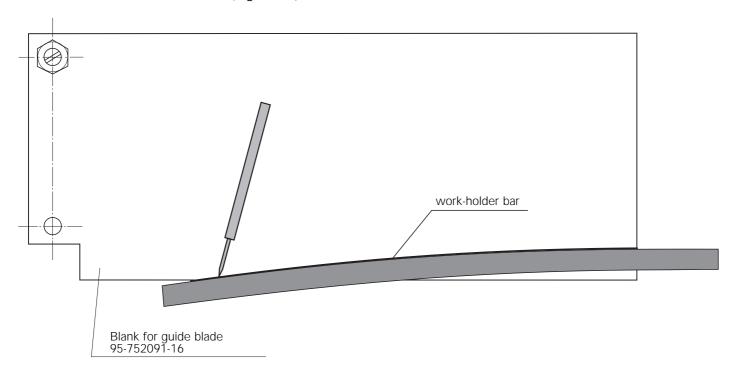


Fig. 13 - 04

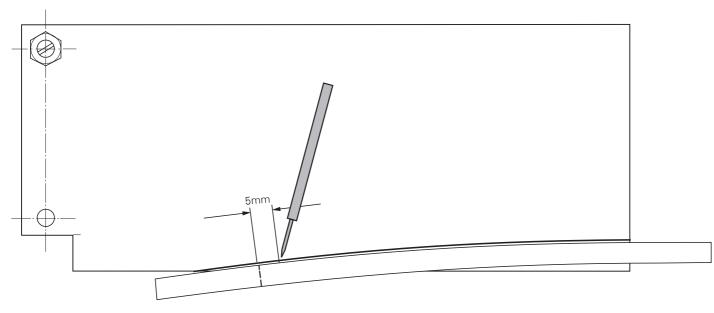


Fig. 13 - 05

PFAFF 13 - 3

Making up styling parts

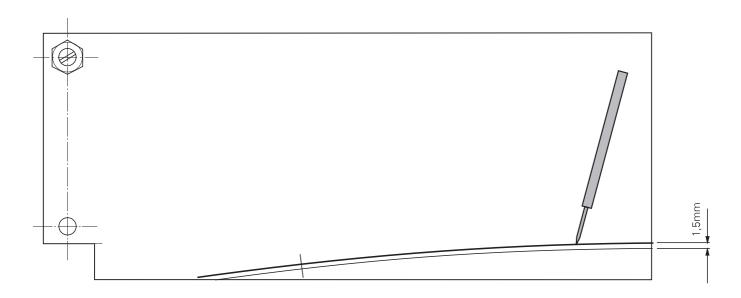


Fig. 13 - 06

- Mark intersection "A" using two radiuses (Fig. 13-07):
 - R1 = dart length AL + 7 mm
 - R2 = half dart length AT + 3 mm.
- Scribe outer contour of guide blade as shown in Fig. 13-08 and cut out contour.
- De-burr and polish cut edges.
- Secure guide blade to guide-blade carrier.
- Carry out a sewing test.
- If necessary adjust guide blade on eccentric pin.

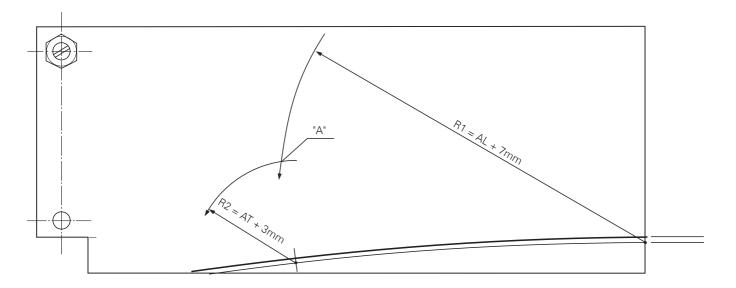
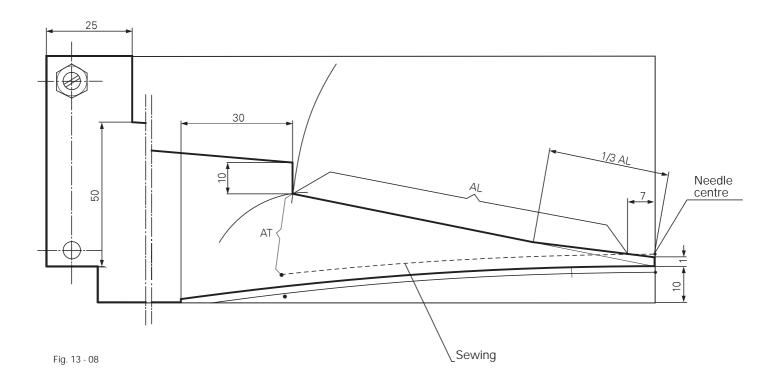


Fig. 13 - 07

13 - 4 **PFAFF**

Making up styling parts



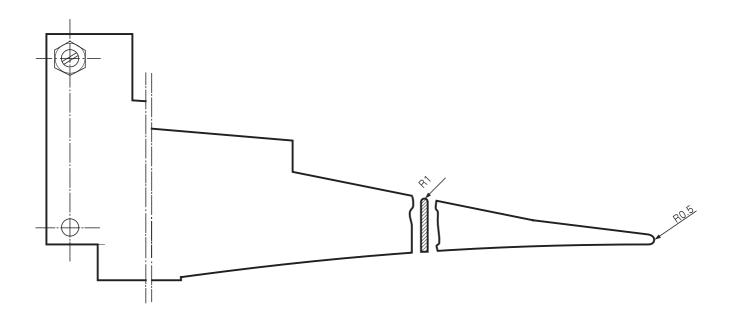


Fig. 13 - 09

PFAFF 13 - 5



G.M. PFAFF Aktiengesellschaft

Postfach 3020 D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

Telefon: (0631) 200-0 Telefax: (0631) 172 02 Telex: 45753 PFAFF D

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