PFAFF

3307-3/01 3307-9/01

Instruction manual

This instruction manual applies to machines from serial number 2716260 and software version 0344/001 onwards, and to machines with software version 0298/013.



This instruction manual applies to all versions and subclasses listed under "Specifications".

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1 Safety

1.01 Regulations

This machine is constructed in accordance with 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 applicable pollution control regulations!

The valid regulations of the regional social insurance society for occupational accidents or other supervisory authorities are to be strictly adhered to!

1.02 General notes on safety

- The machine must only be operated by adequately trained operators and only when the instruction manual has been fully read and understood!
- All notices on safety and the instruction manual of the motor manufacturer are to be read before the machine is put into operation!
- All notes on the machine concerning danger and safety must be observed!
- The machine must be used for the purpose for which it is intended and must not be operated without its safety devices; all regulations relevant to safety must be adhered to.
- When part sets are changed (such as e.g. the needle, sewing foot and needle plate), during threading, when the workplace is left unattended and during maintenance work, the machine must be disconnected from the mains by operating the main switch or pulling out the plug.
- 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 appropriate training!
- During maintenance or repairs on the pneumatic system the machine must be isolated from the compressed air supply! The only exception to this is when adjustments or function checks are carried out by appropriately trained technical staff!
- 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!
- 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 characteristics of the machine. We shall not accept any liability for damage caused by the use of non-original parts.

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Safety

1.03 Safety symbols



Danger!

Special points to observe.



Danger of injury to operating or technical staff!



Electric voltage!

Danger to operating or technical staff!



Caution

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

1.04 Important notes for the user

• This instruction manual belongs to the equipment of the machine and must be available to the operating staff at all times.

This 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.

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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 eliminating any malfunctioning in the sewing area.

The operating staff is obliged to observe the following points:

- The notes on safety in this instruction manual must always be observed!
- Any working methods, which adversely affect the safety of the machine, must be avoided.!
- Loose-fitting clothing should be avoided. No jewellery, such as chains and rings, should be worn!
- Ensure that only authorised persons enter the danger area of the machine!
- Any changes occurring on the machine, which may affect its safety, must be reported to the user immediately.

1.05.02 Technical staff

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

The technical staff is obliged to observe the following points:

- The notes on safety in this instruction manual must always be observed!
- Before carrying out any adjustment or repair work the main switch must be switched off and measures taken to prevent it from being switched on again!
- Never work on parts or equipment still connected to the power supply! Exceptions are only permissible in accordance with the regulations EN 50110.
- All safety covers must be replaced after the completion of maintenance or repair work!

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1.06 Danger warnings



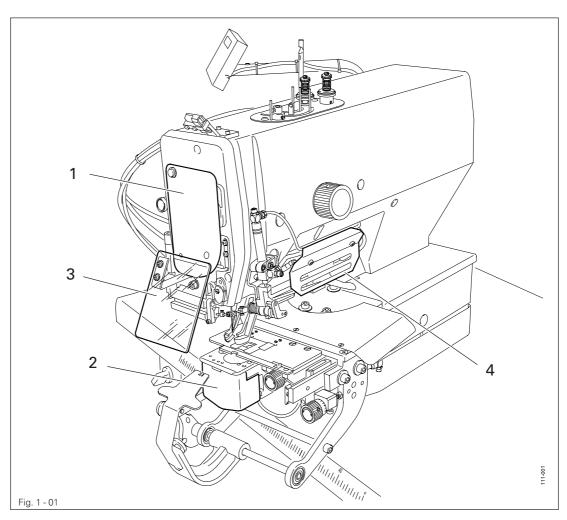
Fig. 1-01 shows the PFAFF 3307-3/01, which has the same safety appliances as the PFAFF 3307-9/01.



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 in the sewing area during sewing! Danger of injury by the needle!





Only operate the machine with covers 1 and 2 closed!

Danger of injury from the movement of the take-up lever and the hook!



Do not operate the machine without eye shield **3**! Danger of injury from flying needle or button fragments!



Do not operate the machine without protective cover **4** (only on the PFAFF 3307-3/01)! Danger of injury from clamp drive!

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2 Proper use

The PFAFF 3307-3/01 is used for the automatic attachment of buttons in the clothing industry. The PFAFF 3307-9/01 is used to wrap button stems in the clothing industry.



Any use of these machines which is not approved by the manufacturer shall be considered as improper use! The manufacturer shall not be 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!

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Specifications

3 Specifications ▲

3.01 General information

Max. sewing speed: PFAFF 3307-3/01 PFAFF 3307-9/01 Stitch type: Needle bar stroke: Max. thickness of workpiece: Max. work clamp clearance: Fabric clearance (crosswise to sewing arm): Fabric clearance (lengthwise to sewing arm): Max. size of sewing area: Number of stitches: Feed type:	
Power supply: Power consumption: Fuse protection:	max. 1,3 kVA
Working air pressure: Air consumption:	
Noise data: Noise emission level at workplace with a sewing speed of 1800 s Sewing cycle 2.5 sec. on and 2.5 sec. Off: (Noise measurement in accordance with DIN 45 635-48-A-1, ISO 12)	$L_{pA} = 68,5 \text{ dB(A)}^{\bullet}$
Sewing head dimensions: Length: Width: Height: Weight of sewing head:	approx. 200 mm approx. 450 mm
Needle system: PFAFF 3307-3/01 PFAFF 3307-9/01 Needle size for fine materials: Needle size for medium-weight materials:	332 LG HK SP

^{*} Depending on cut-out size of bed plate

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[▲] Subject to alterations

[■] $K_{pA} = 2.5 \text{ dB}$

3.02 Seam pattern sizes



When changing part sets parameter "204" must be adapted to the cut-out size of the bed plate, see **Chapter 8.04 Setting the seam pattern size**. If this instruction is not observed there is a risk of severe **damage to the machine!**

Value for parameter "204"	Cut-out size of the bed plate	Size of seam pattern
1	7 mm x 7 mm	5 mm x 5 mm
2	8 mm x 8 mm	6 mm x 6 mm
3	9 mm x 9 mm	7 mm x 7 mm
4	10 mm x 10 mm	8 mm x 8 mm
5	11 mm x 11 mm	8 mm x 9 mm
6	10 mm x 14 mm	8 mm x 12 mm

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Disposal of Machine

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 ist to be commissioned.



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

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Transport, packaging and storage

5 Transport, packaging and storage

5.01 Transportation to customer's premises

The machines are delivered completely packed.

5.02 Transport within the customer's premises

The manufacturer bears no liability for transport within the customer's premises or to the individual locations of use. Make sure that the machines are always transported upright.

5.03 Disposal of the packaging

The packaging of these machines consists of paper, cardboard and VCE fiber. The proper disposal of the packaging is the responsibility of the customer.

5.04 Storage

The machine can be stored for up to 6 months if not in use. During this time it should be protected from dust and moisture.

For longer storage the individual parts of the machine, especially the moving parts, must be protected from 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

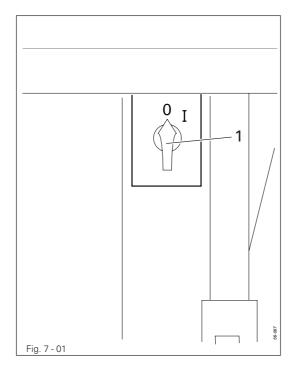


Maintenance, repairs, adjustment, service work (only to be carried out by technical staff)

6 - 1 **PFAFF**

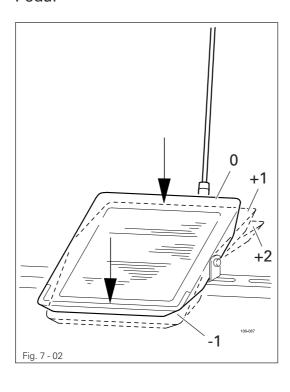
7 Controls

7.01 Main switch



• The machine is switched on or off by turning the main switch 1.

7.02 Pedal



-1 = change stem height (only on sub-class -3/01)

0 = Neutral position

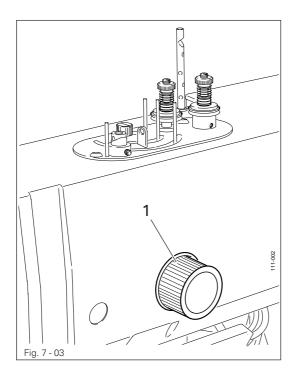
+1 = Lower button clamp

+2 = Sewing

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Controls

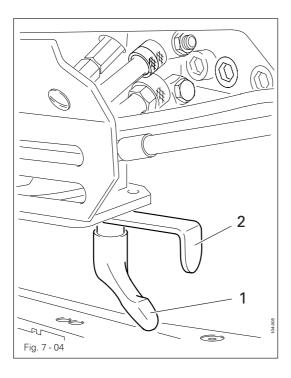
7.03 Balance wheel



 By pressing and holding down balance wheel 1, it is possible to adjust the needle bar manually.

7.04 Special operating elements of the PFAFF 3307-3/01

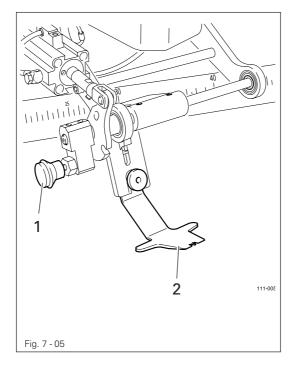
7.04.01 Adjusting the button clamp



 After loosening T-screw 1, with sliding bar 2 the button clamp is adjusted to match the button size, see Chapter 9.03.02 Adjusting the button clamp to the button size.

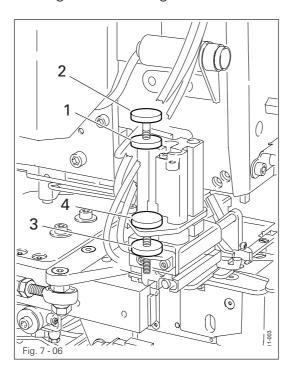
7 - 2 **PFAFF**

7.04.02 Lock lever of the blind stitching guide



 Lock lever 1 is used to retract the blind stitching guide 2 when sewing without it.
 Blind stitching guide 2 is retracted and locked.

7.04.03 Setting the stem lengths

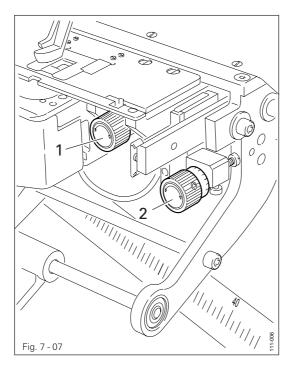


- After loosening locknut 1, the stem height for the long stem is set by turning screw 2.
- After loosening locknut 3, the stem height for the short stem is set by turning screw 4.

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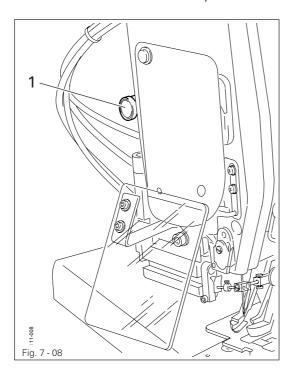
Controls

7.04.04 Setting the penetration depth



- To set the penetration depth (visible seam), turn adjustment wheel 1.
- To set the penetration depth for blind stitching, turn adjustment wheel 2.

7.04.05 Missed stitch detection key





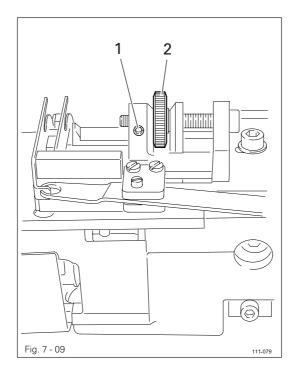
Key 1 lights up, when an error is detected in the sewing process.

- Acknowledge the error signal by pressing key 1.
- By pressing key 1 in addition the thread can be tightened as required

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7.05 Special operating elements of the PFAFF 3307-9/01

7.05.01 Setting the stem length



 After loosening screw 1, the appropriate stem length is set by turning screw 2.

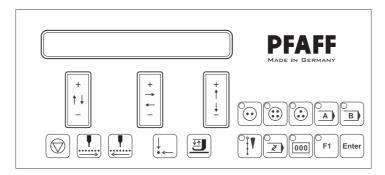


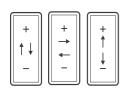
If the stem length setting is altered, the seam pattern input must be checked.

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7.06 Control panel

The keys on control panel 1 are used for selecting machine functions for setting-up purposes, for sewing operations and for entering parameters.





Plus/minus keys

 The values shown on the display can be increased or reduced on the respective key with the use of these keys.



Stop

- When operated during a sewing cycle, the machine is stopped.
- When entering the code number this key corresponds to the figure 0.



Tacting forwards/tacting backwards

• Step-by-step movement through the entire sewing cycle forwards or backwards.



Danger of needle breakage!

Before tacting move the needle to its t.d.c. using the balance wheel.



Basic position

- In the sewing mode the machine moves to the basic position.
- When entering the parameter (sewing mode switched off), the group level of the parameter list is selected (100, 200, ..., 800).



Button clamp raised/lowered

- On the PFAFF 3307-3/01 in the sewing mode the button clamp is raised/lowered.
- When entering the code number this key corresponds to the figure 6.



Further functions can be selected with the keys described below, which are each equipped with an LED. When the LED lights up, the corresponding function is activated / switched on.

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Button type

- On the PFAFF 3307-3/01 these keys are used to select the desired button type (two-, four-, three- or six-hole button).
- When entering the code number these keys correspond to the figures 1, 2 or 3.



Program group A

- By pressing this key on the PFAFF 3307-3/01 the "sew-through button attachment" function is switched on or off.
- When entering the code number this key corresponds to the figure 4.



Program group B

- By pressing this key on the PFAFF 3307-3/01 the "blind sewing" function is switched on or off
- When entering the code number this key corresponds to the figure 5.



Sewing mode/parameter input

 With this key it is possible to switch from the sewing mode (LED on) and the parameter input mode (LED off).



Entering the seam pattern

- If this key is pressed the seam pattern function is switched on or off, see Chapter 11 Input.
- When entering the code number this key corresponds to the figure 7.



Piece counter

- If this key is pressed the piece counter is reset (LED has no function).
- When entering the code number this key corresponds to the figure 8.



F1 key

- By pressing this key on the PFAFF 3307-3/01 the "blind sewing through the facing" function is switched on or off.
- When entering the code number this key corresponds to the figure 9.



Enter

This key is used to confirm inputs and acknowledge error corrections.

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8 Installation and commissioning



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

If the machine is delivered without a table, be sure to use a stand and table top that can hold the weight of the machine with its motor.

It is very important to ensure that the stand of the machine is firm and steady, also during sewing.

8.01 Installation

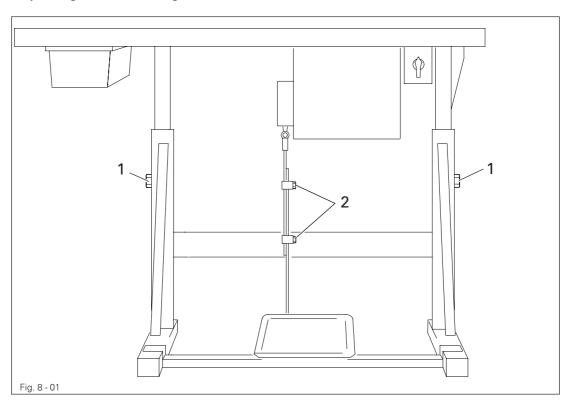
The site where the machine is installed must be provided with suitable connections for electric current.

It must be ensured that the standing surface of the machine site is firm and horizontal, and that sufficient lighting is provided for.



For packing and transportation reasons the table top is in the lowered position. The table height is adjusted as described below.

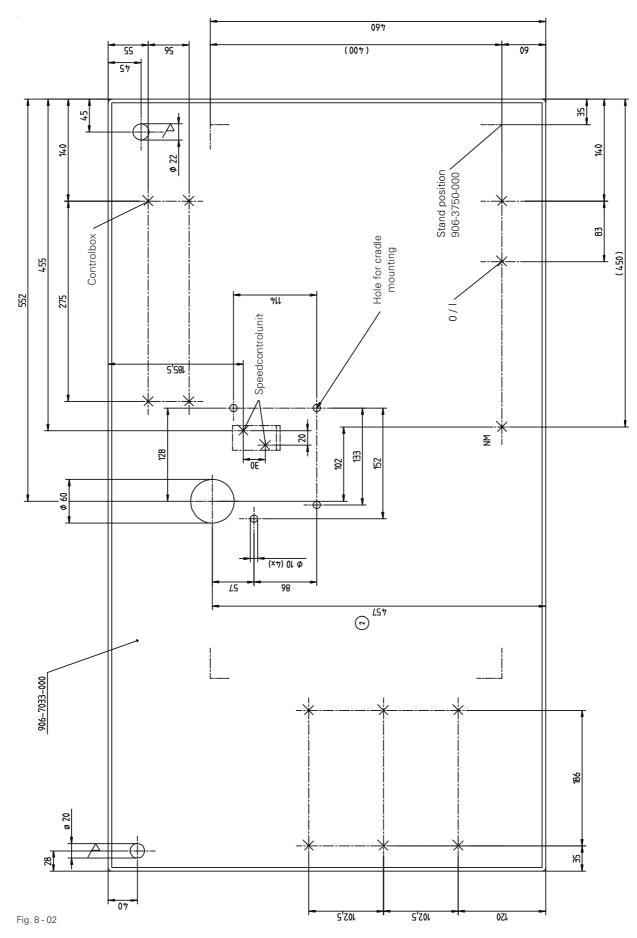
8.01.01 Adjusting the table height



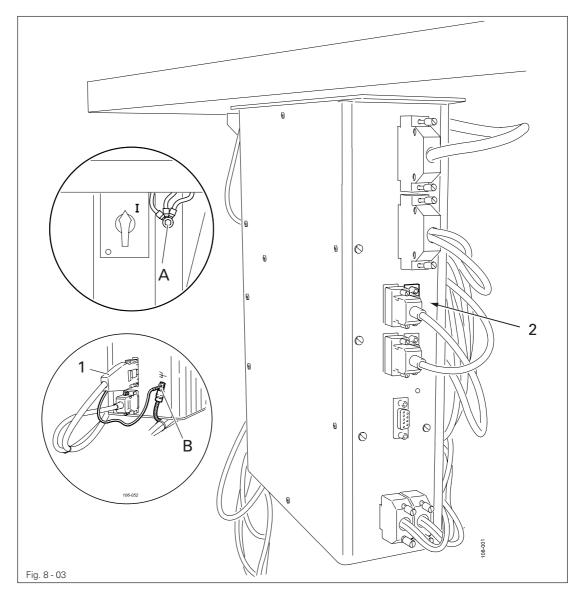
- Loosen screws 1 and 2 and set the table height as required.
- Firmly tighten screw 1.
- Set the required pedal position and tighten screw 2.

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8.01.02 Drilling template for the table top of the 3307-9/01



8.01.03 Connecting the plug-in connections and earth cable



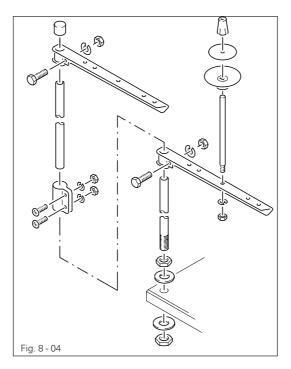
- Connect all plugs as labelled in the control box.
- Screw the earth cable from the machine and from the main switch to earth point A.
- Connect earth points A and B with an earth cable.
- Screw the earth cable of plug 1 to earth point B.



The serial interface 2 is used for data communication between PC and the machine control unit (e.g. for software updates, work with the programs SAM and OSCA).

8 - 3 **PFAFF**

8.01.04 Fitting the reel stand



- Fit the reel stand as shown in Fig. 8 04.
- Afterwards insert the stand in the hole in the table top and secure it with nuts provided.

8.02 Commissioning

- Clean the machine thoroughly and then check the oil level (see Chapter 12 Care and Maintenance).
- Check the machine, in particular the electric leads and pneumatic connection tubes, for any damage.
- Have mechanics ensure that the machine's motor can be operated with the available electricity supply.
- Connect the machine to the compressed air system. The manometer should show a pressure of 6 bar.
 - If necessary, set this value (see Chapter 12.04 Checking / adjusting the air pressure).
- Before the machine is commissioned, the seam pattern sizes set in the machine control
 unit must be checked, see Chapter 8.04 Setting the seam pattern size.

8.03 Switching the machine on / off

Switch the machine on or off (see Chapter 7.01 Main switch).

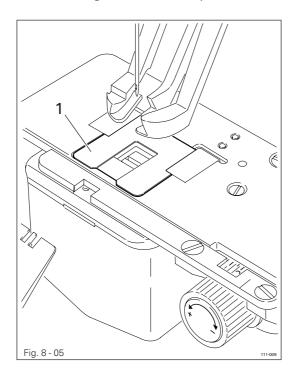
PFAFF 8 - 4

8.04 Setting the seam pattern size



After the machine has been switched on for the first time, first of all the seam pattern sizes set in the machine control unit must be checked and corrected if necessary. The seam pattern size depends on the cut-out size of the bed plate and is set with parameter "204". If these instructions are not observed there is a risk of severe damage to the machine!

8.04.01 Establishing the value for parameter "204"



- Measure the size of the cut-out in bed plate 1.
- With the use of the table below determine the value for parameter "204".
- Set "parameter "204", which is the seam pattern size, in accordance with Chapter 8.04.02 Changing parameter "204".

Value for parameter "204"	Bed plate cut-out size	Seam pattern size
1	7 mm x 7 mm	5 mm x 5 mm
2	8 mm x 8 mm	6 mm x 6 mm
3	9 mm x 9 mm	7 mm x 7 mm
4	10 mm x 10 mm	8 mm x 8 mm
5	11 mm x 11 mm	8 mm x 9 mm
6	10 mm x 14 mm	8 mm x 12 mm

8 - 5 **PFAFF**

8.04.02	Changing parameter "204"
	Switch on the machine.
	• Select the parameter input mode (LED in the key is off).
+ ↑ ↓ -	 Using the corresponding plus/minus key select the function group "200".
Enter	Confirm selection with Enter.
	• Enter the code, see Chapter 11.04.02 Entering/altering the access code.
+ + + -	 Using the corresponding plus/minus key select the parameter "204". 204
+ + + + + + + + + + + + + + + + + + + +	 Using the corresponding plus/minus key select the value established for the seam pattern size, see Chapter 8.04.01 Establishing the value for parameter "204".
	 Conclude parameter input by switching to the sewing mode.

PFAFF 8 - 6

Setting up

9 Setting up

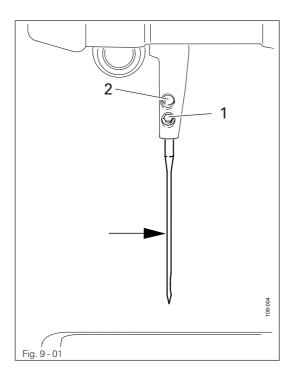


All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



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 its power supply by turning off the on/off switch or removing the machine plug from the electric power socket!

9.01 Inserting the needle





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

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

- Loosen screw 1.
- Insert the needle as far as possible. The long needle groove (see arrow) must be facing forwards.
- Tighten screw 1.

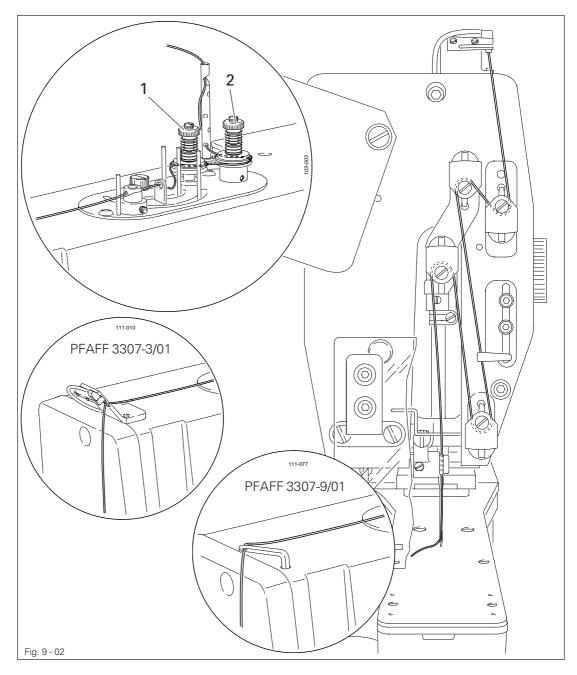


Through hole 2 it is possible to check whether the needle has been inserting as far as possible.

Broken needles can be removed by inserted suitable tools in hole 2.

9 - 1 **PFAFF**

9.02 Threading the sewing thread





Switch off the machine!

Danger of injury if the machine is started accidentally!

- Thread needle thread as shown in Fig. 9-02.
- By turning milled screws 1 and 2 adjust the tension of the needle thread to avoid material puckering or thread breakage.



For thin, soft materials a lower thread tension is required, for thicker fabrics a higher thread tension.



Thread the needle from the front!

PFAFF 9 - 2

Setting up

9.03 Special setting-up work on the PFAFF 3307-3/01

9.03.01 Selecting the button type and program number



To select a button type and program number, a program for the corresponding button must already have been entered with the seam pattern input, see Chapter 11.01 Seam pattern input.

Switch on the machine.
 The sewing mode is activated automatically.



Select the desired button type with the corresponding key.



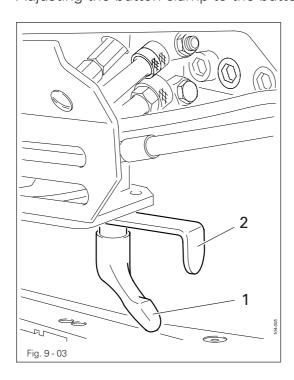
To select the six-hole button, press the **two-button** and **four-button** keys at the same time.





Select the desired program number (1-99), (e.g. "10"), by pressing the corresponding plus/minus key.

9.03.02 Adjusting the button clamp to the button size



- Loosen T-screw 1.
- Open the button clamp with sliding bar 2 and insert the button.
- Move sliding bar 2 to the right and tighten T-screw 1.



The button must fit easily into the button clamp, but without play.

9 - 3 **PFAFF**

9.03.03 Selecting the stem length

Switch on the machine.

1 10 1500

+ ↑↓ - • Select the desired stem length with the corresponding Plus/Minus Key:

Value "1" = "without stem"

Value "2" = "short stem"

Value "3" = "long stem"



When a short or long stem is selected, the corresponding pre-set stem length is called up. Below is a description of how to set the stem lengths.

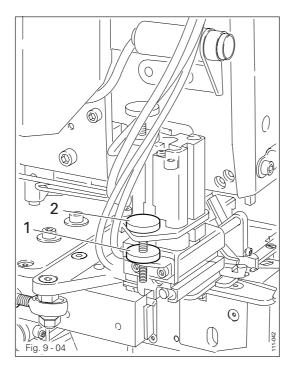
9.03.04 Setting the stem length for a short stem

Switch on the machine.



With the corresponding plus/minus key select the short stem (value "2").

2	10	1500



- Loosen nut 1.
- Set the desired stem height by turning nut 2.
- Tighten nut 1.

PFAFF 9 - 4

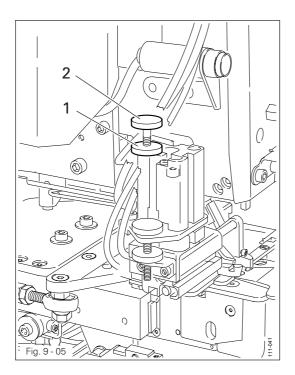
Setting up

9.03.05 Setting the stem length for a long stem

Switch on the machine.

• With the corresponding plus/minus key select the long stem (value "3").

3	10	1500
J	10	1000



- Loosen nut 1.
- Set the desired stem height by turning nut 2.
- Tighten nut 1.

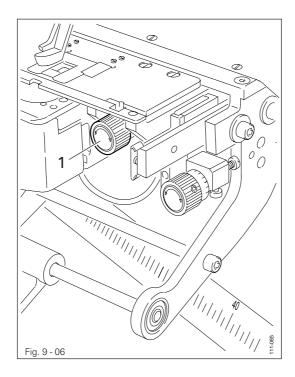
9 - 5 **PFAFF**

9.03.06 Selecting/setting the "sew-through button attachment" function

Switch on the machine.



• Call up the "sew-through button attachment" function with the corresponding key.



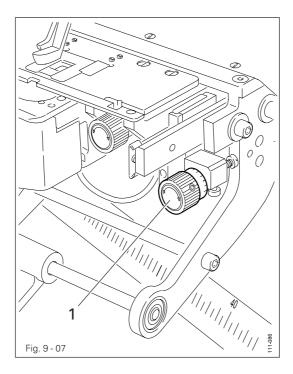
 Set the desired penetration depth by turning adjustment wheel 1.

9.03.07 Selecting/setting the "blind sewing" function

Switch on the machine.



• Call up the "blind sewing" function with the corresponding key.



 Set adjustment wheel 1 in accordance with the thickness of the workpiece.

PFAFF 9 - 6

Setting up

9.03.08 Selecting/setting the "blind sewing through the facing" function

Switch on the machine.



Switch to parameter input (LED in the key is off).



 With the corresponding plus/minus key select the parameter "106" (number of penetrating stitches).





• With the corresponding plus/minus key select the desired value, e.g. "5".





• Conclude the parameter input by switching to the sewing mode.



• With the corresponding key, switch on the "blind sewing through the facing" function.



To achieve the correct operation of the "blind sewing through the facing" function, the value for parameter "503/attaching stitches" must be set at "3".

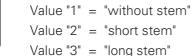
9.03.09 Allocating the stem length to the seam version

Switch on the machine.





Select the required stem length with the corresponding plus/minus key:

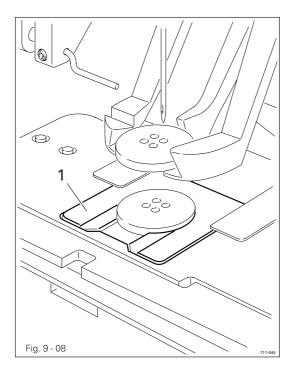


Allocate the required seam version by pressing the corresponding key.



9 - 7 **PFAFF**

9.03.10 Loading plate for loading stay button



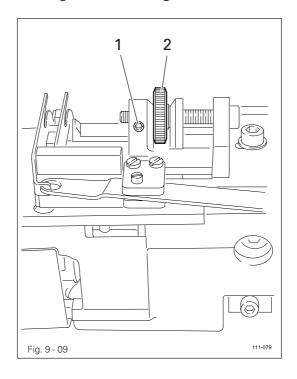
 When working with stay buttons, exchange the needle plate for an appropriate loading plate 1.



Loading plate 1 is manufactured in accordance with customer requirements.

9.04 Special setting-up work on the PFAFF 3307-9/01

9.04.01 Setting the stem length





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

- Insert the button.
- Loosen screw 1.
- Turn screw 2 until the button stem is slightly under tension.
- Tighten screw 1.



The programmed stem length must correspond to the actual stem length of the button, see Chapter 11 Input!

PFAFF 9 - 8

Setting up

9.04.02 Selecting the button type and program number



To select a button type and program number, a program for the corresponding button must already have been entered with the seam pattern input, see Chapter 11 Seam pattern input.

Switch on the machine. The sewing mode is activated automatically.

2000 10	1500
----------------	------



Select the desired program number (1-99), (e.g. "10"), by pressing the corresponding plus/ minus key.

Calling up the sequence mode 9.05



To call up the sequence mode, the sequence must have been entered beforehand, see Chapter 11.03 Seqence Input.

Switch on the machine.



• Call up the parameter input function again (LED in the key is off).



With the corresponding plus/minus key call up parameter "114" (sequence mode).





With the corresponding plus/minus key enter the value "II" to switch on the sequence





Conclude the parameter input by switching to the sewing mode.





Sequence 1 (SEQ1) with 12 seam patterns is displayed. The first seam pattern is currently being sewn. With the middle plus/minus key it is also possible to switch to the individual seam patterns manually.

The right plus/minus key is used to switch from one sequence to another (SEQ 1-9).

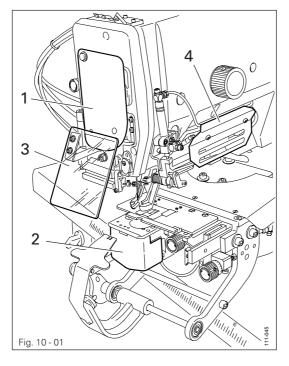
9 - 9 **PFAFF**

10 Sewing

10.01 Sewing with the PFAFF 3307-3/01



The machine must be installed, connected and set up in accordance with Chapter 8 Installation and commissioning.





Only operate the machine with covers 1 and 2 closed!

Danger of injury from the movement of the take-up lever and the hook!



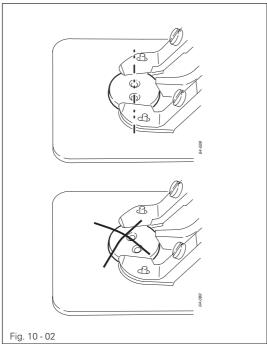
Do not operate the machine without eye shield 3!

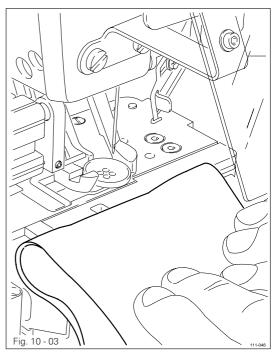
Danger of injury from flying needle or button fragments!



Do not operate the machine without protective cover 4!

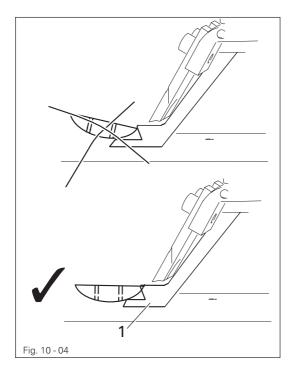
Danger of injury from clamp drive!





- Switch on the machine, see Chapter 8.03 Switching the machine on/off.
- Setting up the machine, see Chapter 9 Setting up.
- Insert the button in the button clamp as shown in Fig. 10.02, and position the workpiece as shown in Fig. 10-03.
- Start the sewing operation, see Chapter 7.02 Pedal.

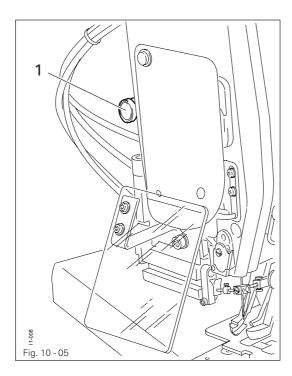
PFAFF 10 - 1





Danger of needle breakage! Make sure that the button is placed in a level position in the button clamp!

 If the button cannot be placed in a level position, the button guide 1 must be appropriately re-machined.



The machine is equipped with a missed stitch detection function, which helps to control the sewing process. If an error occurs, key 1 lights up. The machine start function is blocked.

Following work steps must be carried out:

- Remove the workpiece.
- Press key 1 (lamp goes off).
- Cut off the button, reinsert button and material.
- If necessary, draw thread by pressing key 1 again.
- Restart the sewing process.



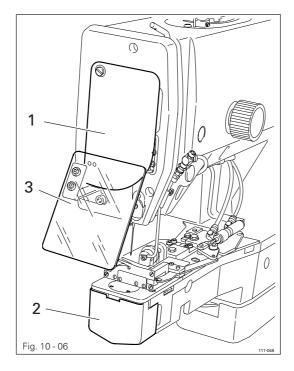
An error signal can be caused e.g. by an incorrectly positioned button or by an incorrectly set needle. If key 1 still lights up, the machine adjustment must be checked by qualified staff.

10 - 2 **PFAFF**

10.02 Sewing with the PFAFF 3307-9/01



The machine must be installed, connected and set up in accordance with Chapter 8 Installation and commissioning.





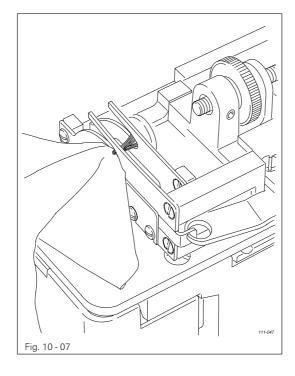
Only operate the machine with covers 1 and 2 closed!

Danger of injury from the movement of the take-up lever and the hook!



Do not operate the machine without eye shield 3!

Danger of injury from flying needle or button fragments!



- Switch on the machine, see Chapter
 8.03 Switching the machine on/off.
- Setting up the machine, see Chapter
 9 Setting up.
- Insert the button as shown in Fig. 10-07.
- Start the sewing operation, see Chapter
 7.02 Pedal.

PFAFF 10 - 3

11 Input

11.01 Seam pattern input on the PFAFF 3307-3/01

It is possible to enter and store 99 programs (seam patterns) for each type of button (two-, three-, four- and six-hole buttons). The seam pattern input is carried out by calling up or entering certain seam parameters. The seam pattern input is described below for each button type.

11.01.01 Seam pattern input for two-hole buttons



Activate the sewing mode.
 (The LED in the key must be on).





 Select the desired button type and program number, see Chapter 9.03.01 Selecting the button type and program number.



Activate the seam pattern input function.
 The first parameter (P01) with the corresponding values is shown on the display.

P01	0	0
H		

Parameter input two-hole button

	P01	First needle entry position
$\left(\begin{array}{c} \Psi^{\dagger} \end{array} \right)$	P02	Second needle entry position
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	P07	Total number of stitches (1-99).
	P10	End knotting function: I = off, II = on
		In self-shank button programs the end knotting function must be switched off!



• Start the first needle entry position (P01) with the corresponding plus/minus keys.



Confirm input with Enter.
 Machine moves automatically to input of the next parameter.





• Start the second needle entry position (P02) with the corresponding plus/minus keys.

11 - 1 **PFAFF**



Confirm input with Enter.
 Machine moves automatically to input of the next parameter.



• Select the total number of stitches "P07" with the corresponding plus/minus key.



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.



• Switch the end knotting function "P10" on/off with the corresponding plus/minus key.



By pressing the **seam pattern input** key the values entered are stored and the machine is in the basic position of the sewing mode.



By pressing the **sewing mode/parameter input** key the values are also stored, and the machine is then in the parameter input mode.



By pressing the **basic position** key the seam pattern input is interrupted, the old values are kept and the machine changes to the sewing mode.



To achieve the best results, cutting should take place at the left needle entry position. This is achieved through the number of stitches and the location of the needle entry positions.

PFAFF 11 - 2

Input

11.01.02 Seam pattern input for three-hole buttons



Activate the sewing mode .
 (The LED in the key must be on).





 Select the desired button type and program number, see Chapter 9.03.01 Selecting the button type and program number.



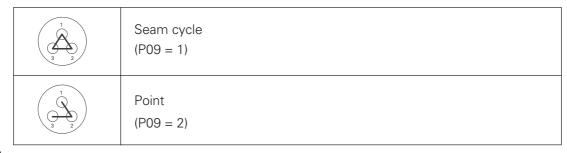
Activate the seam pattern input function.
 The first parameter (P01) with the corresponding values is shown on the display.



Parameter input three-hole button

	P01	First needle entry position
	P02	Second needle entry position
3 2	P03	Third needle entry position
	P07	Total number of stitches (2-99)
	P09	Seam pattern:1 = seam cycle, 2 = point, 3 = basting
	P10	End knotting function: I = off, II = on

Seam pattern for the three-hole button





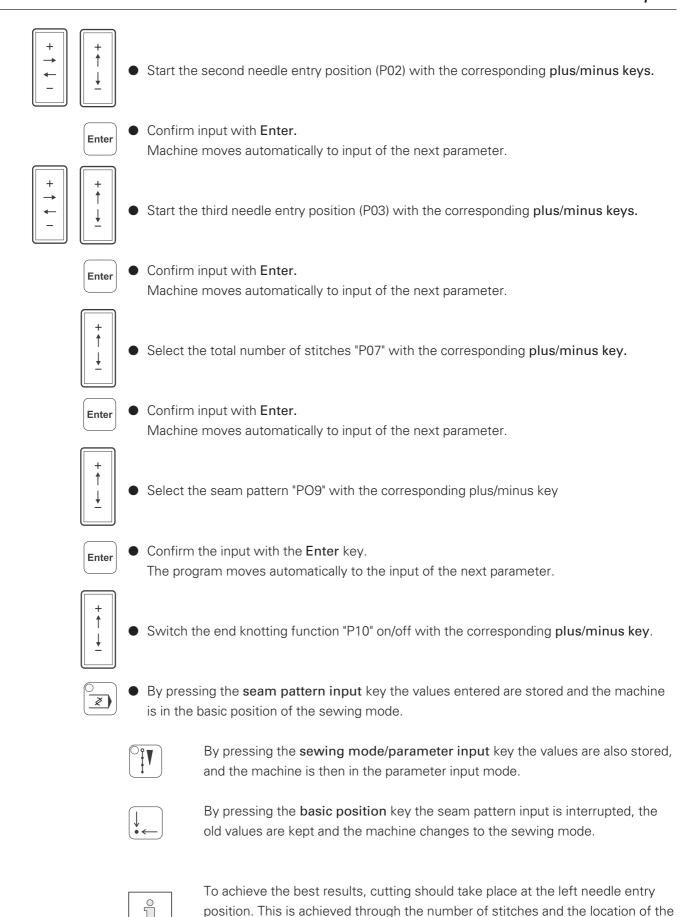


• Start the first needle entry position (P01) with the corresponding plus/minus keys.



Confirm input with Enter.
 Machine moves automatically to input of the next parameter.

11 - 3 **PFAFF**



PFAFF 11 - 4

needle entry positions.

Input

11.01.03 Seam pattern input for four-hole buttons



Activate the sewing mode .
 (The LED in the key must be on).





 Select the desired button type and program number, see Chapter 9.04 Selecting the button type and program number.



Activate the seam pattern input function.
 The first parameter (P01) with the corresponding values is shown on the display.



Parameter input four-hole button

	P01	First needle entry position
$\left \left(^{3}\Psi \Psi ^{\dagger }\right) \right $	P02	Second needle entry position
4 1 2	P03	Third needle entry position
	P04	Fourth needle entry position
	P07	Total number of stitches (2-99)
	P08	Intermediate trimming: I = off, II = on
	P09	Stitch formation: 1 = normal, 2 = seam cycle, 3 = arrow, 4 = Z
	P10	End knotting function: I = off, II = on

Seam pattern examples for the four-hole button

	Seam patterns with intermediate cutting (P06 = II), without seam cycle (P09 = 1).
(3 (1) (1) (4 (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Seam patterns witouth intermediate cutting (P06 = I), and without seam cycle (P09 = 1).
	Seam patterns with seam cycle (P09 = 2), the intermediate cutting function is switched off automatically.
2 2 3	Seam pattern "arrow" (PO9 = 3) the intermediate cutting function is switched off automatically.
2 2 3 4	Stitch formation "Z" (P09 = 4) The intermediate trimming function is switched off automatically.

11 - 5 **PFAFF**

+ + +	† † <u>†</u>	Start the first needle entry position (P01) with the corresponding plus/minus keys.
	Enter	Confirm input with Enter. Machine moves automatically to input of the next parameter.
+ +	† † <u>+</u>	Start the second needle entry position (P02) with the corresponding plus/minus keys.
	Enter	Confirm input with Enter. Machine moves automatically to input of the next parameter.
+ - -	† † <u>+</u>	Start the third needle entry position (P03) with the corresponding plus/minus keys.
	Enter	Confirm input with Enter. Machine moves automatically to input of the next parameter.
+ - -	+ + + + + + + + + + + + + + + + + + + +	Start the fourth needle entry position (P04) with the corresponding plus/minus keys.
	Enter	Confirm input with Enter. Machine moves automatically to input of the next parameter.
	† † <u>†</u>	Select the total number of stitches "P07" with the corresponding plus/minus key.
	Enter	Confirm input with Enter. Machine moves automatically to input of the next parameter.
	† † <u>†</u>	Switch off the intermediate cutting function (P08) with the corresponding plus/minus keys.
	Enter	Confirm input with Enter . Machine moves automatically to input of the next parameter.
	† † <u>†</u>	Select the seam pattern "PO9" with the corresponding plus/minus key

PFAFF 11 - 6

Input



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.



• Switch the end knotting function "P10" on/off with the corresponding plus/minus key.



 By pressing the seam pattern input key the values entered are stored and the machine is in the basic position of the sewing mode.



By pressing the **sewing mode/parameter input** key the values are also stored, and the machine is then in the parameter input mode.



By pressing the **basic position** key the seam pattern input is interrupted, the old values are kept and the machine changes to the sewing mode.



To achieve the best results, cutting should take place at the left needle entry position. This is achieved through the number of stitches and the location of the needle entry positions.

11 - 7 **PFAFF**

11.01.04 Seam pattern input for six-hole buttons



Activate the sewing mode.
 (The LED in the key must be on.)





 Select the desired button type and program number, see Chapter 9.04.02 Selecting the button type and program number.



Activate the seam pattern input function.
 The first parameter (P01) with its corresponding values is shown on the display.



Parameter input six-hole button

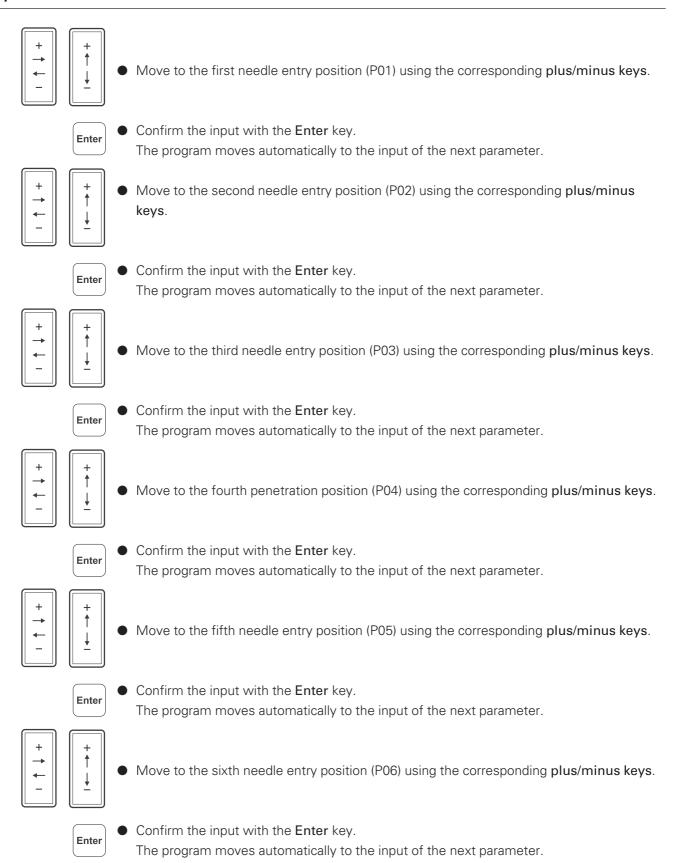
5 3 1	P01	First needle entry position
	P02	Second needle entry position
$\left[\left(\begin{array}{c} \Phi \Phi \Phi \end{array} \right) \right]$	P03	Third needle entry position
6 4 2	P04	Fourth needle entry position
	P05	Fifth needle entry position
	P06	Sixth needle entry position
	P07	Total number of stitches (2-99)
	P08	Intermediate trimming: I = off, II = on
	P09	Seam pattern: 1, 2 (see seam example)
	P10	End knotting function: I = off, II = on

Seam pattern examples for the six-hole button

$ \begin{array}{ c c c } \hline \begin{pmatrix} 5 & 3 & 1 \\ \hline 0 & 0 & 0 \\ 0 & 0 & 0 \\ 6 & 4 & 2 \end{pmatrix} $	Seam patterns with intermediate trimming (P08 = II), Stitch formation 1 (P09 = 1)
	Seam pattern without intermediate trimming (P08 = I), Stitch formation 1 (P09 = 1)
1 Q A 5 Q 2 3 Q 6	Seam patterns with intermediate trimming (P08 = II), Stitch formation 2 (P09 = 2)

PFAFF 11 - 8

Input



11 - 9 **PFAFF**



• Select the total number of stitches "P07" using the corresponding plus/minus key.



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.



 Switch the intermediate trimming function "P08" on or off using the corresponding plus/ minus keys.



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.



Select the stitch formation "P09" using the corresponding plus/minus key.



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.



• Switch the end knotting function "P10" on/off using the corresponding plus/minus key.



 By pressing the seam pattern input key the values entered are stored and the machine is in the basic position of the sewing mode.



By pressing the **sewing mode/parameter input** key the values are also stored, and the machine is then in the parameter input mode.



By pressing the **basic position** key the seam pattern input is interrupted, the old values are kept and the machine changes to the sewing mode.



To achieve the best results, cutting should take place at the left needle entry position. This is achieved through the number of stitches and the location of the needle entry positions.

PFAFF 11 - 10

11.02 Seam pattern input on the PFAFF 3307-9/01

99 programs (seam patterns) can be entered and stored. The seam patterns are entered by starting or entering certain seam parameters. The seam pattern input is described below.



Activate the sewing mode.
 (The LED in the key must be on.)



 Select the required program number, see Chapter 9.04.02 Selecting the program number.



Activate the seam pattern input function.
 The first parameter (P01) is shown on the display with its corresponding values.





In the following description of the seam parameter input make sure, that the needle – in particular the needle shank – does not come into contact with the needle holder!

Danger of needle breakage and machine damage!

	2 P01	Cross stitch position material side
	P02	Cross stitch position button side
1	P07	Total number of stitches (1-99)



 Move to the material side cross stitch position (P01) using the corresponding plus/minus key (it is only possible to move to the x-axis).



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.





 Move to the button side cross stitch position (P02) using the corresponding plus/minus key.



Confirm the input with the Enter key.
 The program moves automatically to the input of the next parameter.

11 - 11 **PFAFF**

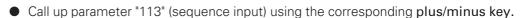
11.03 Sequence input

In one sequence up to 99 seam patterns can be stored in any order. When working with the sequence (sequence mode) the seam patterns are processed one after the other in the order specified. After the last seam pattern in the sequence, the first seam patters follows again. . Below is an example of a sequence input with two seam patterns.

Switch on the machine



Switch to parameter input (LED in the key is off).





113



• Confirm the input with the Enter key.



Select sequence number (1-9) using the corresponding plus/minus key.



Confirm the input with the Enter key.



Select the button type and enter the program number, e.g. "5" using the corresponding plus/minus key.





If necessary, alter the stem length, e.g. to "2" using the corresponding plus/minus key.





If necessary, allocate the appropriate seam type, e.g. "sew-through button attachment".



Select the next seam pattern in the sequence (e.g. "2") using the corresponding plus/minus key.





Select the button type required and enter the seam pattern using the corresponding plus/minus key.



If necessary, allocate the appropriate seam type, e.g. "sew-through button attachment".

PFAFF 11 - 12

Input



Select the next sequence position using the corresponding plus/minus key.



• To end the sequence, select the next seam position and set the seam pattern at "0".



5



• Conclude the parameter input by switching to the sewing mode.

2



To be able to work with the sequence, the sequence mode parameter "114") must be activated, see Chapter 9.05 Calling up the sequence mode.

11 - 13 **PFAFF**

11.04 Parameter input

11.04.01 Selecting and changing parameters

Switch on the machine.



Switch to parameter input (LED on the key is off).



• Select the function group, e.g. "200" with the corresponding plus/minus key.





Confirm with Enter.

• Enter the code, see Chapter 11.04.02 Entering/changing the access code.



201 1

• Using the corresponding plus/minus key call up e.g. the parameter "209" (air nozzle).



209 I

• Select the parameter value with the corresponding plus/minus key.





 By pressing the sewing mode/parameter input key the values are stored, and the machine is then in the sewing mode.



By pressing the **basic position** key the parameter input is interrupted, the old values are kept and the machine changes to the basic position of the parameter input mode.

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Input

11.04.02 Entering/changing the access code

Switch on the machine.



Switch to parameter input (LED on the key is off).



• Select the function group, e.g. "800" with the corresponding plus/minus key.



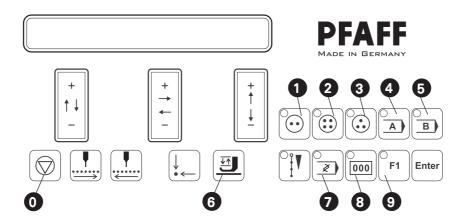


Confirm with Enter.



• Enter the code

As shown below, the figures are entered with the corresponding function keys. The factory code setting is "3307".



Code: 3307



Confirm with Enter.





 To change the access code, select the parameter "819" (enter access code) with the corresponding plus/minus key.





 Enter a new code number and save it by pressing Enter or by selecting the sewing mode.

11 - 15 **PFAFF**

11.04.03 Assigning access rights Switch on the machine. Switch to parameter input (LED on the key is off). • Select the function group, e.g. "800" with the corresponding plus/minus key. 800 Enter • Confirm with Enter. Enter the code (e.g.: 3307). Code: 3307 Confirm with Enter. Enter 801 • Select the desired parameter "801 to 818" with the corresponding plus/minus key, see Chapter 13.51 Parameter settings. 818 1 • Use the corresponding **plus/minus key** to release or block the selected parameter. 0: Free access to parameter function. 1: Access to parameter function only after entering access code. If all the parameters (801 to 818) are set at "0", the access code will no longer

PFAFF 11 - 16

Take over the setting with **Enter** or by selecting the **sewing mode**.

be demanded.

Care and maintenance

12 Care and maintenance

Cleaning the hook compartment	daily
Cleaning the entire machine	once a week
Cleaning the air filter/lubricator (air filter)	as required
Topping up oil (gears and sewing head)	once a month
Checking the air pressure daily,	, before operation



During all cleaning work the machine must be disconnected from the power supply by switching off the main switch or pulling out the plug!

Danger of injury if the machine is started accidentally!

12.01 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.



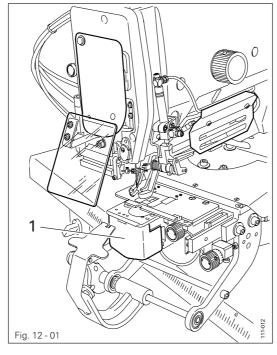
To avoid breakdowns, the following cleaning work is recommended for single shift operation:

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

12 - 1 **PFAFI**

12.02 Cleaning the hook compartment





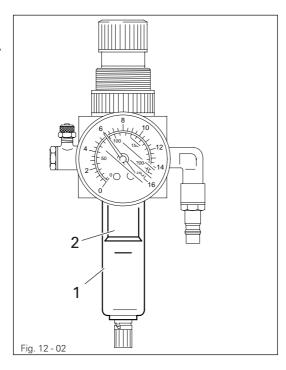


Switch off the machine! Danger of injury if the machine is started accidentally!

- Open the hook compartment cover 1.
- Clean the hook and the hook compartment daily, more often if in continuous operation.

12.03 Cleaning the air filter/lubricator







Switch off the machine! Remove the compressed air tube from the air filter.

Empty the water tank 1:

 The water tank 1 empties automatically after the removal of the compressed air tube of the air filter.

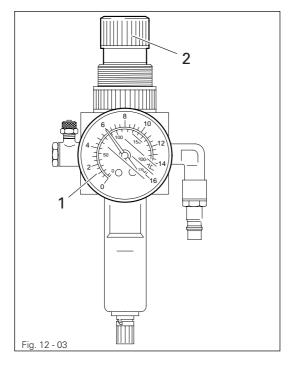
Clean filter 2:

- Unscrew water tank 1.
- Remove filter 2.
- Clean filter 2 with compressed air or with isopropyl alcohol (part no. 95-665 735-91).
- Replace filter 2 and screw water tank 1 back into place.

PFAFF 12 - 2

Care and maintenance

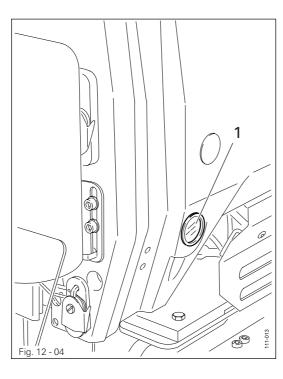
12.04 Checking/adjusting the air pressure



- Before operating the machine, always check the air pressure on gauge 1.
- Gauge 1 must show a pressure of 6 bar.
- If necessary adjust to this reading.
- To do so, pull knob 2 upwards and turn it so that the gauge shows a pressure of 6 bar.

12.05 il level for the needle drive unit







Top up oil once a month.

 Pour in oil through the hole in inspection glass 1 up to the bottom edge of the hole.



Only use oil with a mean viscosity of 31.0 mm²/s at 40° C and a density of 0.870 g/cm³ at 15° C.



We recommend PFAFF sewing machine oil, part no. 280-1-120 145

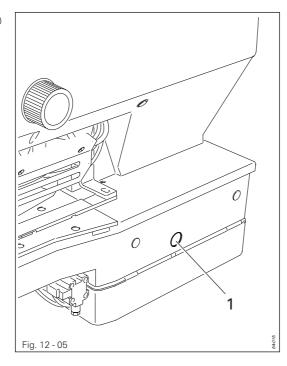
12 - 3 **PFAFF**

Care and maintenance

12.06

Oil level for the gears







Top up oil once a month.

 Pour in oil through the hole in inspection glass 1.



Only use oil with a mean viscosity of 31.0 mm²/s at 40° C and a density of 0.870 g/cm³ at 15° C.



We recommend PFAFF sewing machine oil, part no. 280-1-120 145

PFAFF 12 - 4

Adjustment

13 Adjustment



Unless stated otherwise, the machine must be disconnected from the electric and pneumatic power supply!

13.01 Notes on adjustment

All following adjustments are based on a fully assembled machine and may only be carried out by expert staff trained for this purpose.

Machine covers, which have to be removed and replaced to carry out checks and adjustments, are not mentioned in the text.

The order of the following chapters corresponds to the most logical work sequence for machines which have to be completely adjusted. If only specific individual work steps are carried out, both the preceding and following chapters must be observed.

Screws, nuts indicated in brackets () are fastenings for machine parts, which must be loosened before adjustment and tightened again afterwards.



For all the general settings in these adjustment instructions, illustrations of the PFAFF 3307-3/01 have been used, the relevant points of which can be transferred to PFAFF 3307-9/01.

In the heading appropriate reference will be made to special settings, which are only valid for certain subclasses.

13.02 Tools, gauges and other accessories

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 et of wrenches with jaw widths from 7 to 14 mm
- 1 set of Allen keys from 1.5 to 6 mm
- 1 offset screwdriver, part no. 91-029 339-91
- 1 metal ruler, part no. 08-880 218-00
- 1 C-clamp, part no. 62-111 600-35/001
- 1 needle rise gauge 2.4 mm, part no. 61-111 600-01
- 1 adjustment gauge "hook centre", part no. 08-880 138-00
- 1 button gauge, part no. 61-111 635-66
- 1 locking pin "t.d.c. needle", part no. 61-111 635-92
- 1 locking pin "needle drive", part no. 13-030 272-05
- Needles, threads and test material

13.03 Abbreviations

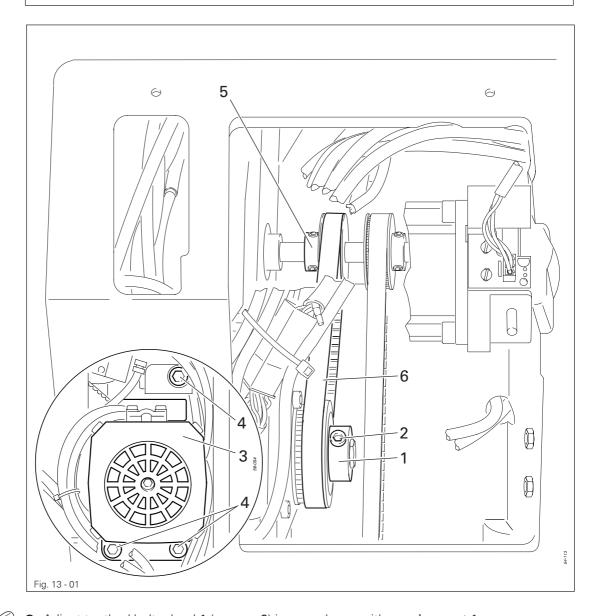
t.d.c. = top dead centre b.d.c. = bottom dead centre

13 - 1 **PFAFF**

13.04 Toothed belts of the main drive

Requirement

- 1. Toothed belt wheels 1 and 5 should be in alignment.
- 2. Hardly any play should be noticeable between toothed belt wheels 1 and 5 and the toothed belt 6.





- Adjust toothed belt wheel 1 (screws 2) in accordance with requirement 1.
- Move motor 3 (screws 4) in accordance with requirement 2.



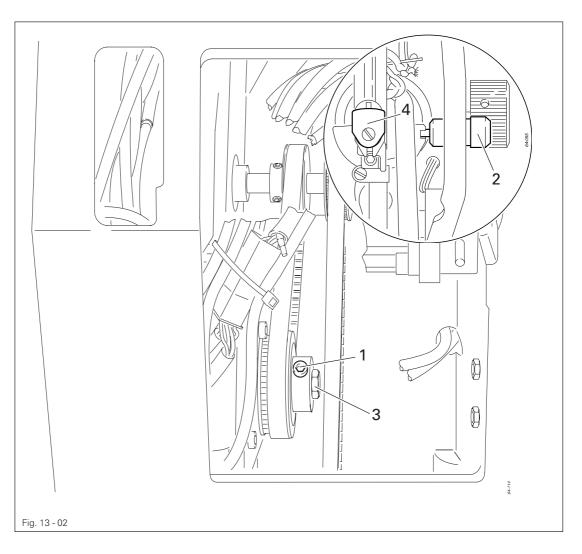
If there are operational noises, the adjustments must be repeated.

PFAFF 13 - 2

13.05 Top needle bar position (reference position)

Requirement

Needle bar 4 should be positioned at its t.d.c. with access to one of the screws 1.





- Remove the needle.
- Loosen screws 1.
- Using the balance wheel, position the needle bar at its t.d.c. and lock it with locking pin 2 (part no. 61-111 635-92).
- Switch on the machine, select parameter 612.
- With screw 3 turn the motor shaft so that the value for parameter 612 is at "0".



- Confirm the value with the enter key.
- Tighten screws 1 (to begin with only one screw is accessible).
- Switch off he machine and remove locking pin 2.



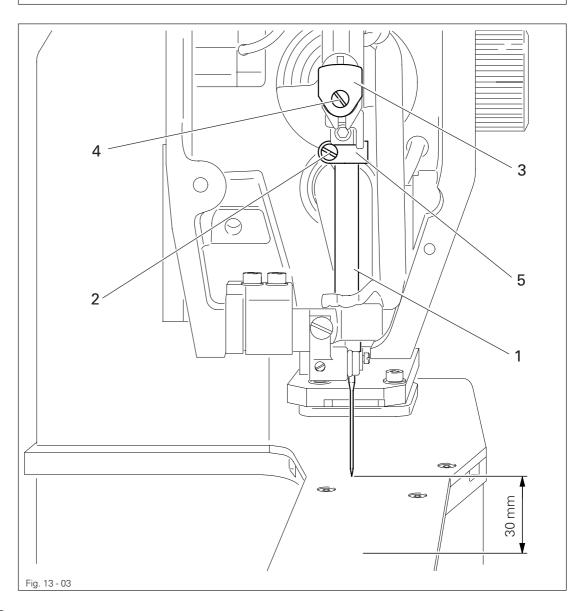
This setting can change again by \pm 3 increments after checking.

13 - 3 **PFAFF**

13.06 Pre-adjusting the needle height

Requirement

- 1. When the needle bar is at its t.d.c., there should be a distance of **30 mm** between the needle point and the needle plate.
- 2. The thread puller 3 should be touching clamp 5 and be positioned in the centre of the face plate cutout.





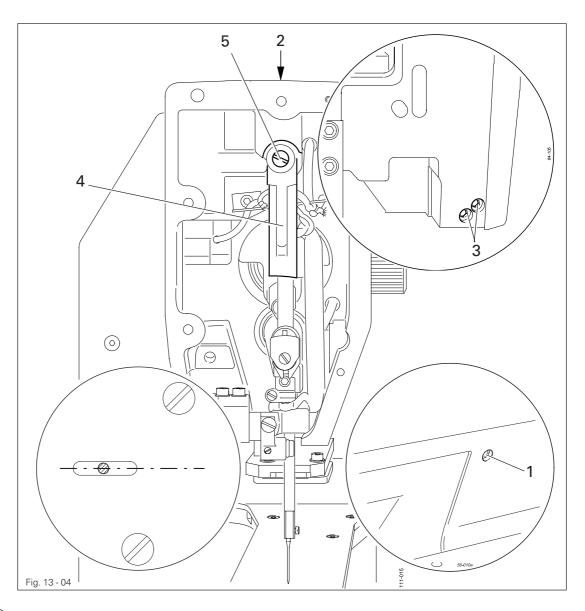
Adjust needle bar 1 (screw 2) and thread puller 3 (screw 4) in accordance with the requirements.

PFAFF 13 - 4

13.07 Position of the needle to the needle hole

Requirement

When the needle bar is at its b.d.c., in the lengthwise direction of the arm the needle should be positioned in the centre of the needle hole.





- Switch on the machine and set parameter "610" at value "1".
- Unscrew cloth plate.
- Loosen screws 1,2 and 3.
- With the balance wheel set the needle bar at its b.d.c.
- Align pendulum 4 in accordance with the requirement.
- Tighten screws 3.
- By moving the needle bar, make sure that pin 6 is not jammed and tighten screw 2.
- Switch off the machine.



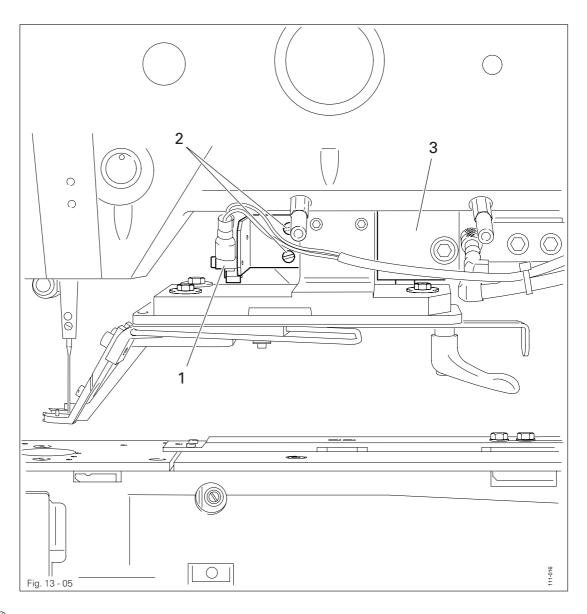
Screw 1 remains loosened for further adjustments.

13 - 5 **PFAFF**

13.08 Basic position "button clamp raised"

Requirement

When cylinder 3 is retracted completely, switch 1 should operate reliably.





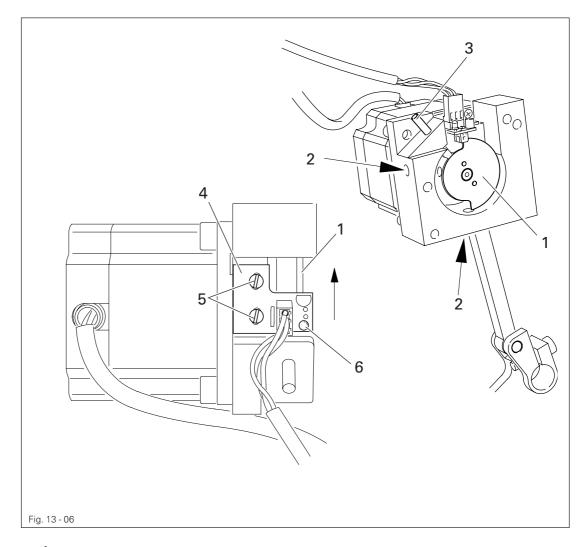
• Adjust switch 1 (screws 2) in accordance with the requirement.

PFAFF 13 - 6

13.09 Sensor board of the needle drive (in dismantled condition)

Requirement

- 1. When parameter "610" is set at "1", the recess in eccentric 1 should match the locking hole in the mounting bracket.
- 2. The switch lug of eccentric 1 should be axially centred to the hybrid light barrier of the sensor board.





To change the sensor board, it is imperative to observe the following work steps!



Electric voltage!

Danger of an electric shock if handled incorrectly!



- Completely remove the needle drive unit (plugs remain connected).
- Loosen screws 2.
- Lock eccentric 1 by placing the locking pin 3 (part no. 13-030 272-05) in the locking hole of the mounting bracket.

13 - 7 **PFAFF**

Adjustment



- Switch on the machine and wait until the stepping motor has stopped running (ignore error message on the control panel).
- Set parameter "610" at "1" (see Chapter 13.51.01 Selecting and changing parameters).
- Making sure that it is touching the rear wall, move board 4 (screw 5) in the direction of the arrow, until LED 6 lights up and move it back until LED 6 has just extinguished.
- Move eccentric 1 in accordance with requirement 2 and tighten screws 2.
- Switch off the machine.
- Remove locking pin 3.
- Switch on the machine and check the needle drive unit in accordance with requirement 1.
- Switch off the machine.
- Install needle drive unit and adjust it in accordance with Chapter 13.10 Basic setting of the needle drive.

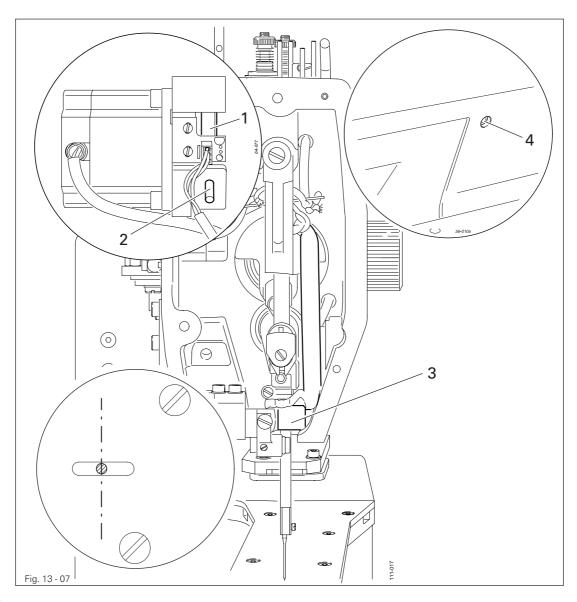
PFAFF 13 - 8

Adjustment

13.10 Basic setting of the needle drive

Requirement

With the needle bar at its b.d.c. and with eccentric 1 locked, in the crosswise direction of the arm the needle should be in the centre of the needle hole.





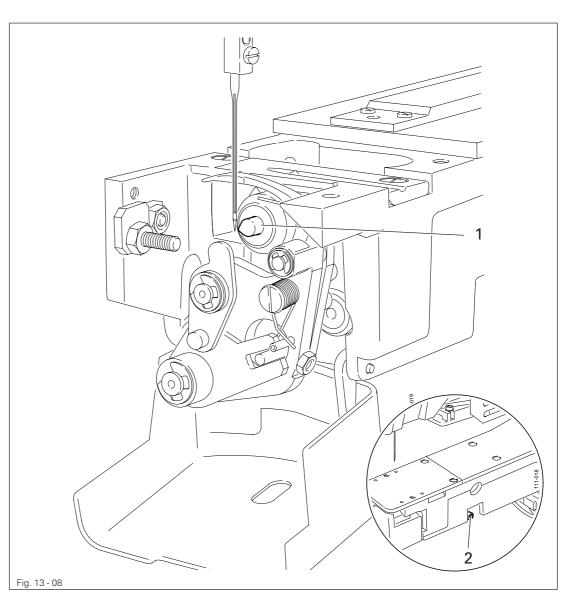
- Switch on the machine and set parameter "610" at "1".
- Unscrew cloth plate.
- Using the balance wheel, set the needle bar at its b.d.c. and lock eccentric 1 (locking pin 3, part no. 13-030 272-05).
- Adjust the needle bar frame 3 (screw 4) in accordance with the requirement.
- Remove locking pin 2.

13 - 9 **PFAFF**

13.11 Position of the hook shaft to the needle

Requirement

When parameter "610" is set at "1", the hook shaft should be centred to the needle.





- Remove needle plate and cloth plate.
- Remove hook and fit hook gauge 1 (part no. 61-111 637-03).
- Loosen screw 2.
- Switch on the machine and set the parameter "610" at "1".
- Using the balance wheel, set the needle bar at its b.d.c. and set the hook gauge 1 at the centre of the needle.
- Tighten screw 2.
- Switch off the machine and remove hook gauge 1.



The needle plate and cloth plate as well as the hook remain dismantled for further adjustments.

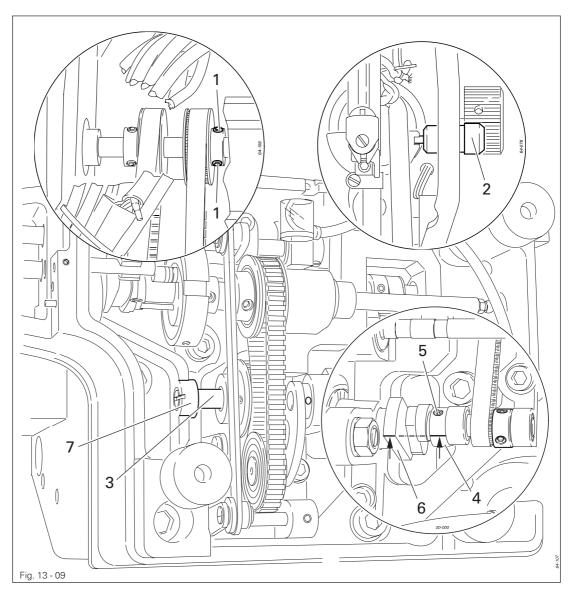
PFAFF 13 - 10

13.12 Adjusting the drag link mechanism

Requirement

When the needle bar is at t.d.c.

- 1. The milled slot in shaft 3 should be in alignment with the milled slot of the cast iron bracket 7.
- 2. The milled slot of crank 4 should be in alignment with the front edge of driving crank 6.





- Loosen screw 1 on the arm shaft.
- Using the balance wheel, set the needle bar at t.d.c. and lock it with locking pin 2.
- Adjust shaft 3 in accordance with requirement 1 with the aid of the needle rise gauge (2.4 mm).
- Tighten screws 1.
- Turn crank 4 (screws 5) in accordance with requirement 2.
- Remove locking pin 1.



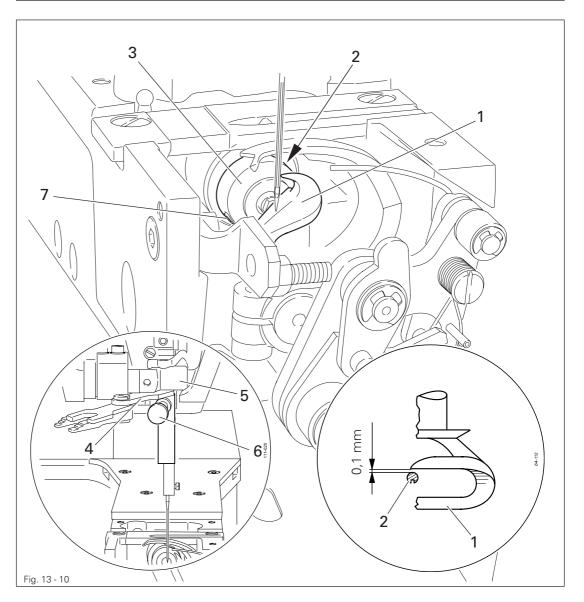
If the position described in **requirement 2** is not reached, driving crank **6** must be installed accordingly.

13 - 11 **PFAFF**

13.13 Needle rise and hook clearance

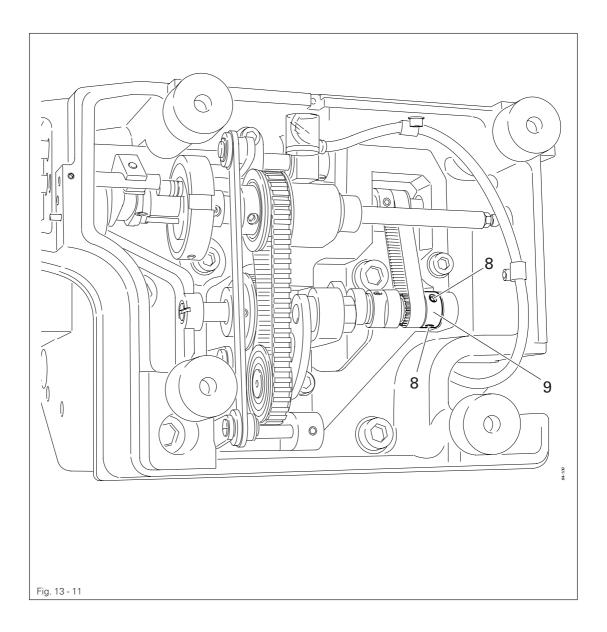
Requirement

When the needle bar is positioned 2.4 after b.d.c. and parameter "610" is set at "1", the point of hook 1 should be positioned at "needle centre" and be at a distance of 0.1 mm from the needle.





- Dismount thread brake.
- Insert hook 1 so that screw 2 of collar 3 is on the surface of the hook shaft.
- Slightly tighten screw 2.
- Switch on the machine and set parameter "610" at "1".
- Turn the balance wheel in the direction of sewing until the needle bar is in its bottom stroke.
- Fit needle rise gauge 4 (2.4 mm) to needle bar frame 5 and fasten with C-clamp 6.
- Remove the needle rise gauge 4.
- Turn the balance wheel in the direction of sewing until C-clamp 6 is touching the needle bar bearing 5.





- Adjust hook 1 (screws 2 and 7) in accordance with the requirement.
- Remove C-clamp 6.
- Fit thread brake.



If the adjustment possibilities on the hook are insufficient, a greater correction can be made with the hook shaft mechanism.

Loosen screws 8 and turn toothed belt wheel 9 or the hook shaft accordingly.



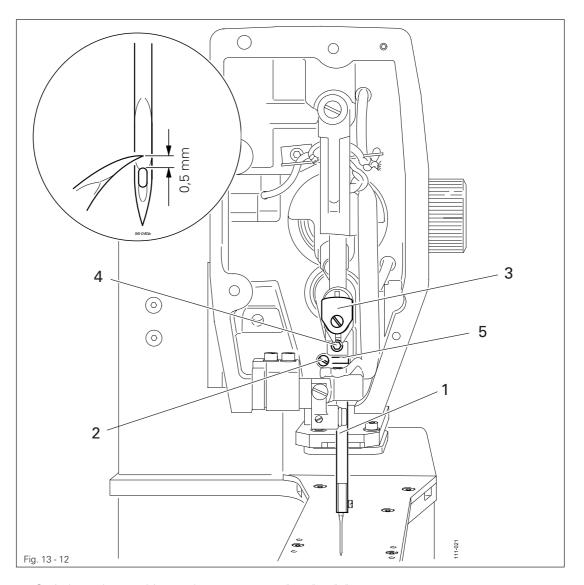
On the PFAFF 3307-9/01 under certain circumstances it may be necessary to increase the hook-point-to-needle clearance to approx. **0.5 mm**.

13 - 13 **PFAFF**

13.14 Readjusting the needle height

Requirement

- 1. When parameter "610" is set at "2" and the hook point is centred to the needle, the top edge of the needle eye should be **0.5 mm** below the bottom edge of the hook point.
- 2. Thread puller **3** should be touching clamp **5** and be positioned in the centre of the face plate recess.





- Switch on the machine and set parameter "610" at "2".
- Turn the balance wheel in the direction of sewing until the needle bar is at its bottom stroke.
- Set the hook point to the centre of the needle by continuing to turn the balance wheel.
- Adjust needle bar 1 (screw 2) and thread puller 3 (screw 4) in accordance with the requirements.
- Switch off the machine.

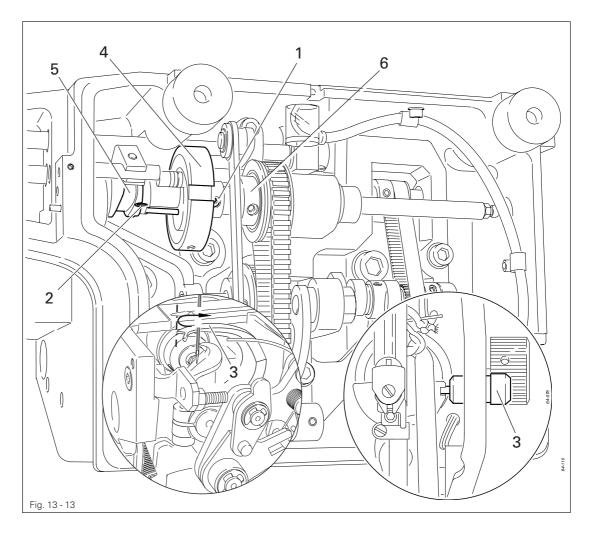


When checking the left needle entry position (parameter "610" at value "3"), the distance between the top edge of the needle eye and the lower edge of the hook point is greater.

13.15 Adjusting the loop spreader

Requirement

- 1. When the needle bar is positioned at t.d.c., the milled slot in control cam **4** should be at the bottom.
- 2. In the needle rise position, loop spreader **7** should begin its reverse movement.
- 3. When the needle is descending (in the direction of sewing) loop spreader **7** should be at its bottom left stroke, when the needle has reached the top edge of the needle plate.





- Loosen screws 1 and 2.
- With the balance wheel set the needle bar at its t.d.c. and lock it with locking pin 3.
- Adjust control cam 4 together with control cam 5 in accordance with requirement 1.
- Move control cam 4 together with control cam 5 to touch drive wheel 6 and tighten screws 1 and 2.
- Remove locking pin 3.
- Carry out a check in accordance with requirements 2 and 3.

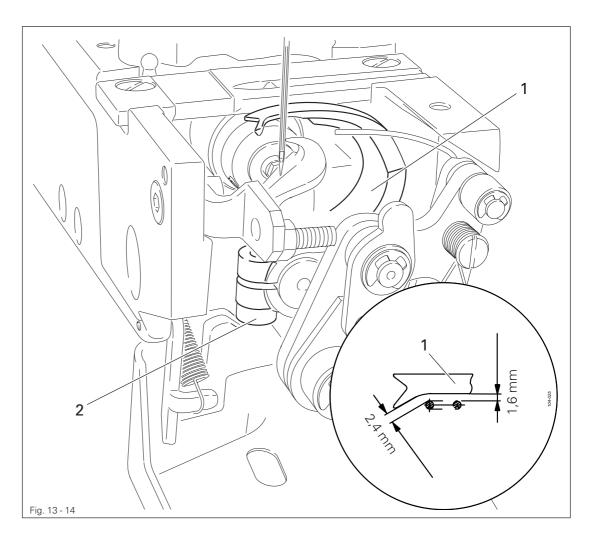
13 - 15 **PFAFF**

13.16 Position of the loop spreader to the needle

Requirement

When the needle bar is positioned at b.d.c. and parameter "610" is set at "3"

- 1. There should be a distance of **2.4 mm** between the front edge of the loop spreader **1** and the needle.
- 2. There should be a distance of approx. 1.6 mm between loop spreader 1 and the needle.



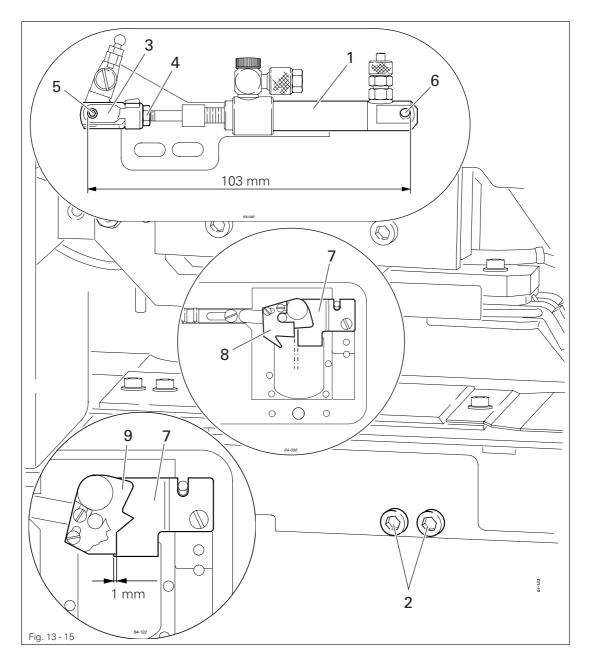


- Switch on the machine and set parameter "610" at "3".
- Position the needle at its b.d.c. by turning the balance wheel.
- Adjust loop spreader 1 (screw 2) in accordance with requirements 1 and 2.
- Switch off the machine.

13.17 Adjusting the thread trimmer on the PFAFF 3307-3/01

Requirement

- 1. When extended the outer edges of pins 5 and 6 should be at a distance of 103 mm from each other.
- 2. When the thread trimmer is in its neutral position, the stationary knife 7 should be parallel to the edge of thread puller 8.
- 3. When the thread trimmer is in its cutting position, knife 9 should cut approx. 1 mm.





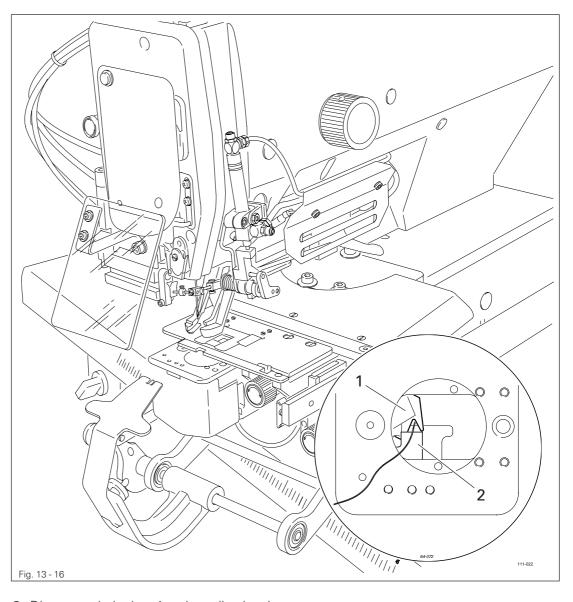
- Remove cylinder 1 (screws 2).
- Adjust hinged section 3 (nut 4) in accordance with requirement 1.
- Install cylinder 1 (screws 2) and adjust in accordance with requirement 2 and 3.
- Carry out a functional test of the thread trimmer with parameter "603" (output 4).

13 - 17 **PFAFF**

13.18 Manual cutting test (only on the PFAFF 3307-3/01)

Requirement

In a manual cutting operation the thread should be cut reliably.





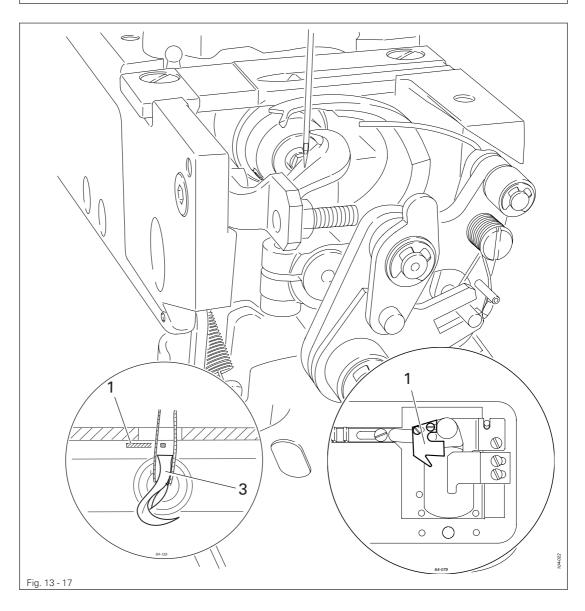
- Dismount cloth plate 1 and needle plate insert.
- Place the thread between thread catcher 2 and knife 3.
- Disconnect the machine from the pneumatic power supply.
- Check the **requirement** by carrying out a manual cutting operation.
- Mount the needle plate, taking care to see that the spherical head of the cutting cylinder grips into the corresponding guide section of the needle plate.

Adjustment

13.19 Adjusting the thread catcher

Requirement

In the cutting position the hook 3 should be vertical and the thread catcher 1 should grip reliably in the stitch triangle.





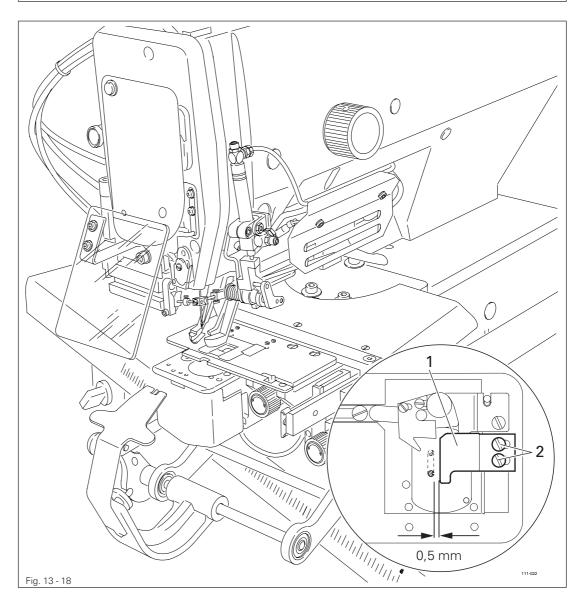
- Switch on the machine and set parameter "403" at the maximum value.
- Select the sewing mode and carry out a sewing operation.
- Switch the machine off in the cutting position at the on/off switch and disconnect it from the pneumatic power supply.
- Carry out the cutting operation manually, checking the **requirement** while doing so.
- If necessary, switch on the machine and with the parameters "614" and "615" set the thread catcher 1 in accordance with the requirement.
- If the hook 3 is not vertical in the cutting position, check the setting in accordance with Chapter 13.05 Top needle bar position (reference position).
- Switch off the machine and check the cutting operation.
- Switch on the machine, reset parameter "402" to its initial value and switch off the machine.

13 - 19 **PFAFF**

13.20 Adjusting the thread loop support only on the PFAFF 3307-3/01

Requirement

Both at the extreme right point of penetration and at the extreme left point of penetration the needle should be at a distance of approx. 0.5 mm from the thread loop support 1.





- Switch on the machine and bring the needle into the relevant position (value "1, 2 or 3") with parameter "610".
- Adjust thread loop support 1 (screws 2) in accordance with the requirement.
- Switch off the machine.

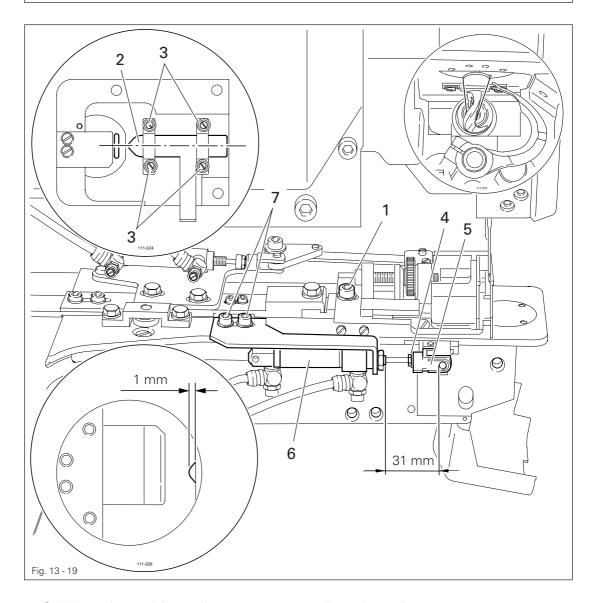


The thread loop support 1 is also used as a knife guard.

13.21 Adjusting the spreader (only on the PFAFF 3307-9/01)

Requirement

- 1. The spreader 2 should be centred to the needle plate cutout.
- 2. When the cylinder is extended, there should be a distance of **31 mm** between the pin of yoke head **4** and the front edge of cylinder **6**.
- 3. When the cylinder is retracted, the spreader should protrude 21 mm above the edge of the needle plate.





- Switch on the machine and set parameter "610" at value "1".
- Remove the button holder (screw 1) and the needle plate.
- Align the spreader 2 (screws 3) in accordance with requirement 1.
- Remove the needle plate insert and fit the needle plate.
- Adjust yoke head 4 (nut 5) in accordance with requirement 2.
- Adjust cylinder 6 (screws 7) in accordance with requirement 3.
- Switch off the machine.



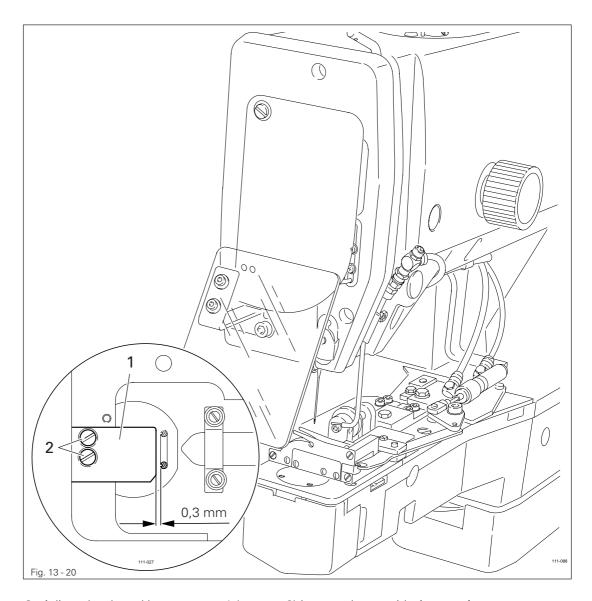
The button holder and needle plate insert remain removed for further adjustments.

13 - 21 **PFAFF**

13.22 Adjusting the thread loop support on the PFAFF 3307-9/01

Requirement

With the needle bar at b.d.c., there should be a distance of **0.3 mm** between thread loop support **1** and the needle.





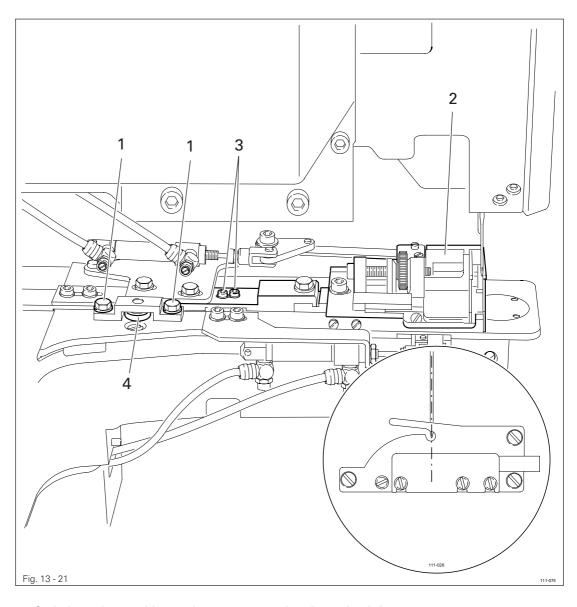
• Adjust the thread loop support 1 (screws 2) in accordance with the requirement.

Adjustment

13.23 Aligning the button holder (only on the PFAFF 3307-9/01)

Requirement

The needle bar should be centred to the hole in button holder 2.





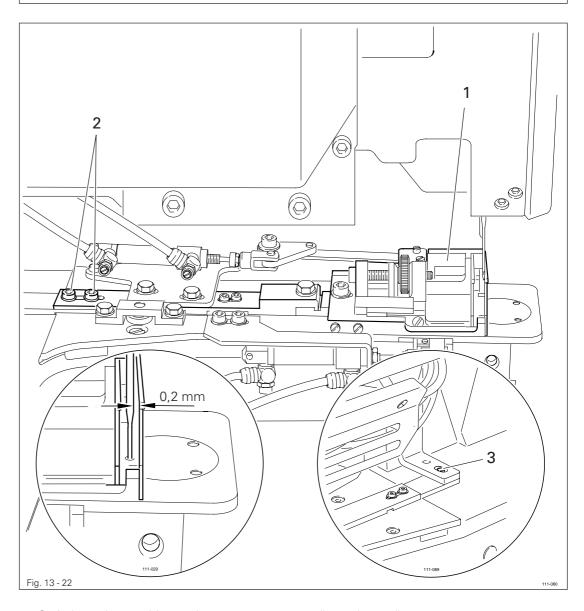
- Switch on the machine and set parameter "610" at value "1".
- Loosen screw 1.
- Adjust button holder 2 (screws 3) in accordance with the requirement.
- Move support roller 4 to make contact and tighten screws 1.
- Switch off the machine.

13 - 23 **PFAFF**

13.24 Basic position of the button holder (only on the PFAFF 3307-9/01)

Requirement

With the needle bar at b.d.c., there should be a distance of **0.2 mm** between button holder **1** and the needle shank.





- Switch on the machine and set parameter "610" at value "1".
- Adjust button holder 1 (screws 2) in accordance with the requirement.
- Switch off the machine.

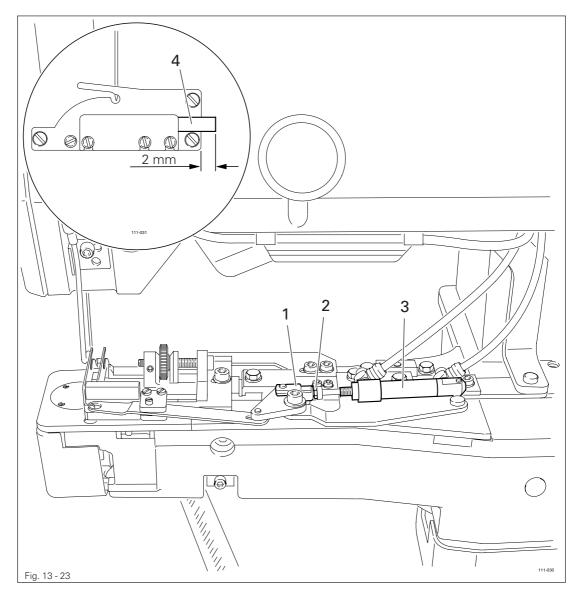


When tightening the screws, pin 3 must be in the centre of the hole.

13.25 Adjusting the thread trimmer on the PFAFF 3307-9/01

Requirement

When the thread trimmer is in its basic position, the knife 4 should be at a distance of 2 mm from the button holder.





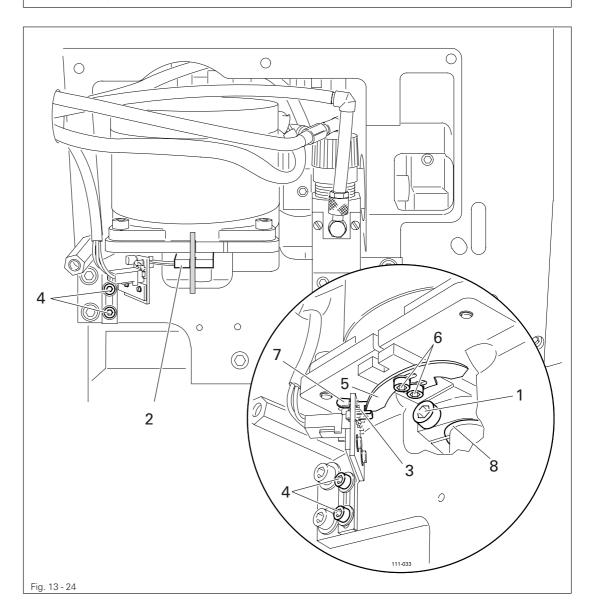
- Switch on the machine and connect it to the pneumatic system.
- Set parameter "508" at the values "1" / "80".
- Set parameter "510" at values "126".
- Insert yoke head 1 (nut 2) completely.
- Extend cylinder 3 (basic position).
- Adjust yoke head 1 (nut 2) in accordance with the requirement.
- Select the sewing process in order to carry out a cutting test.
- If necessary, correct the setting.
- Switch off the machine and disconnect it from the pneumatic system.

13 - 25 **PFAFF**

13.26 Basic position of the button clamp drive on the PFAFF 3307-3/01

Requirement

- 1. After the machine has been switched on, it should be possible to lock lever 2 with the needle rise gauge (2.4 mm).
- 2. Switch lug 5 should be positioned in the centre of the recess of the light barrier 3.





- Loosen screw 1.
- Switch on the machine.
- Adjust lever 2 in accordance with requirement 1 (lock with needle rise gauge).
- Tighten screw 1.
- Adjust light barrier 3 (screws 4) in accordance with requirement 2.
- With lever 2 locked, move the switch lug 5 (screws 6), until LED 7 lights up and then move it back again until LED 7 has just extinguished.
- Switch off the machine and remove the needle rise gauge.

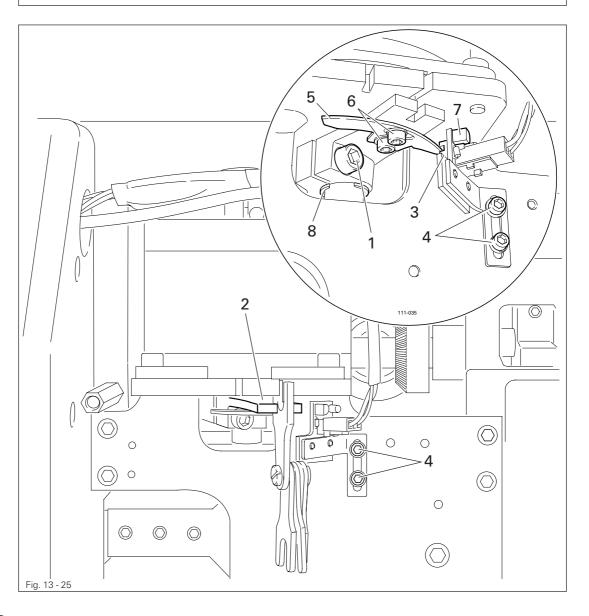


Spring clip 8 serves as an adjustment aid and should be touching lever 2. The open side of the spring clip 8 should be in alignment with the clamp groove of lever 2.

13.27 Basic position of the button clamp drive on the PFAFF 3307-9/01

Requirement

- 1. After the machine has been switched on, it should be possible to lock lever 2 with the needle rise gauge (2.4 mm).
- 2. Switch lug 5 should be positioned in the centre of the recess of the light barrier 3.





- Loosen screw 1.
- Switch on the machine.
- Adjust lever 2 in accordance with requirement 1 (lock with needle rise gauge).
- Tighten screw 1.
- Adjust light barrier 3 (screws 4) in accordance with requirement 2.
- With lever 2 locked, move the switch lug 5 (screws 6), until LED 7 lights up and then move it back again until LED 7 has just extinguished.
- Switch off the machine and remove the needle rise gauge.



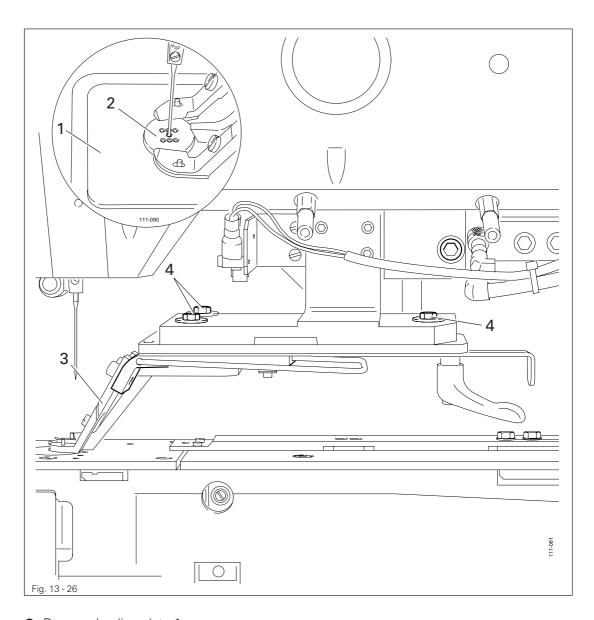
Spring clip 8 serves as an adjustment aid and should be touching lever 2. The open side of the spring clip 8 should be in alignment with the clamp groove of lever 2.

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13.28 Aligning the button clamp (only on the PFAFF 3307-3/01)

Requirement

After selecting parameter "610", (at the value "4") the needle should penetrate in the centre hole of button gauge 2.



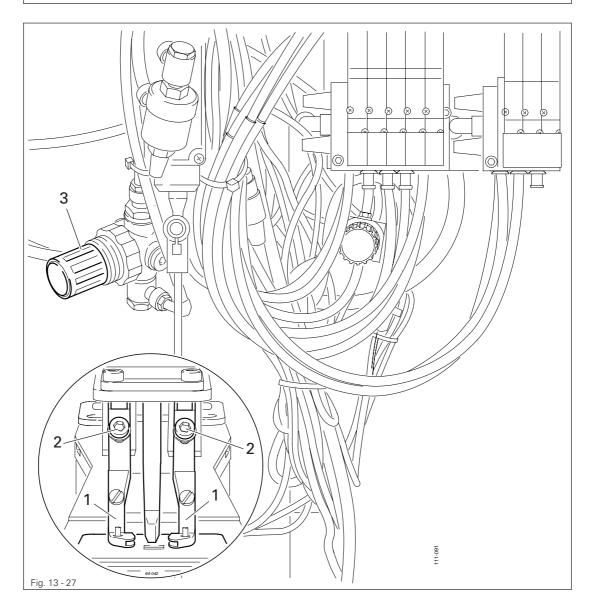


- Remove loading plate 1.
- Switch on the machine and set parameter "610" at value "4" (button gauge: centre).
- Insert and align button gauge 2 (part no. 61-111 635-66).
- If necessary, correct the setting of button clamp 3 (screws 4).
- Switch off the machine.
- Remove the button gauge and fit the loading plate.

13.29 Adjusting the clamp pressure (only on the PFAFF 3307-3/01)

Requirement

When the button clamp is lowered, the clamp jaws 1 should rest parallel on the needle plate. The workpiece should be held reliably without suffering any damage.





- Connect the machine to the pneumatic system.
- Switch on the machine and lower the button clamp.
- Adjust clamp jaw 1 (screws 2) and regulator 3 in accordance with the requirement.
- Switch off the machine and disconnect it from the pneumatic system.



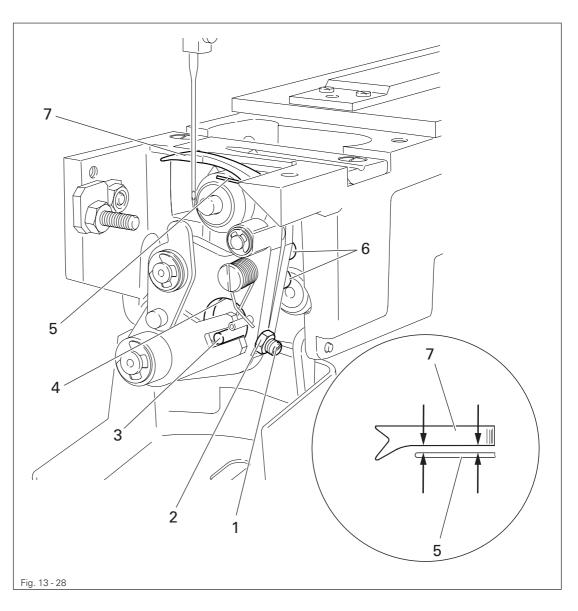
The factory setting of the clamp pressure is 3 bar.

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13.30 Basic setting of the end knotting equipment

Requirement

Retaining finger 5 should be parallel to loop spreader 7.





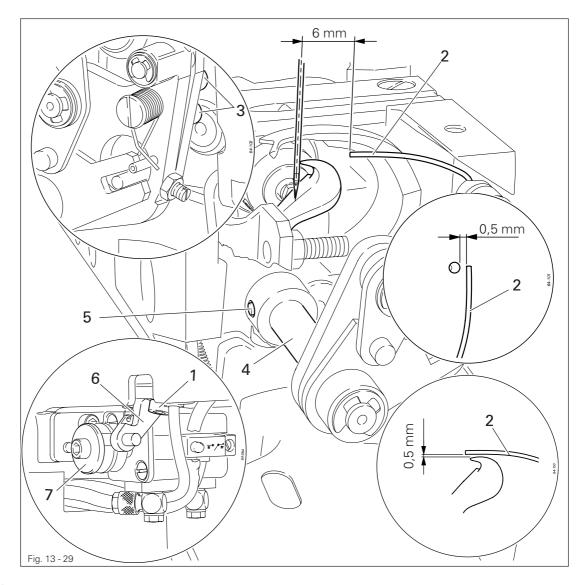
- Dismount cloth plate and needle plate.
- First of all remove screw 1 (nut 2), until pin 3 is touching the wall of hole 4.
- Then turn screw 1 round once and fix with nut 2.
- Align retaining finger 5 (screws 6) in accordance with the requirement.

13.31 Adjusting the retaining finger of the end knotting equipment

Requirement

When parameter "610" is set at "1" and the machine is in the needle rise position

- 1. The bottom edge of retaining finger 2 should be 0.5 mm above the hook point.
- 2. There should be a distance of **0.5 mm** between retaining finger **2** and the needle.
- 3. There should be a distance of 6 mm between retaining finger 2 and the centre of the needle.





- Switch on the machine and connect it to the pneumatic system.
- Set parameter "610" at value "1" and set needle rise position.
- Loosen screw 1.
- Adjust retaining finger 2 (screw 3) in accordance with requirement 1.
- Adjust shaft 4 (screw 5) in accordance with requirement 2.
- Switch off the machine.
- Adjust retaining finger 2 (screw 1) in accordance with requirement 3.



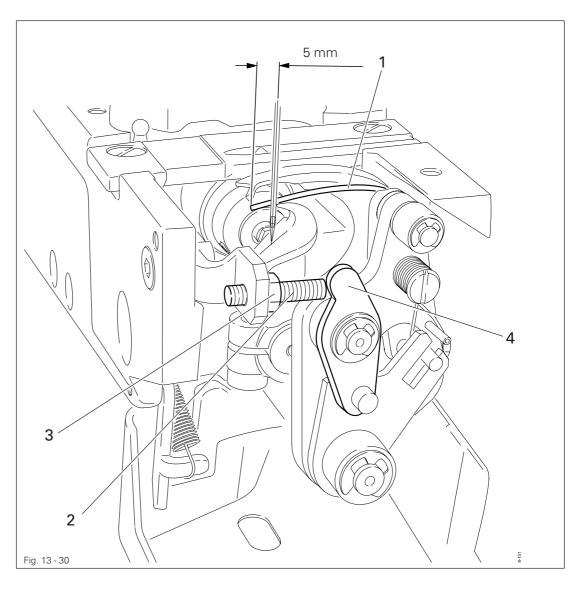
When tightening screw 1 take care to see that lever 6 engages reliably in part 7 and does not block the cylinder.

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13.32 Adjusting the lifting lever of the end knotting equipment

Requirement

When parameter "610" is set at "1" and the machine is in the needle rise position, the retaining finger 1 should be positioned 5 mm behind the centre of the needle and the lifting lever 4 should be touching screw 2.





- Switch on the machine, set parameter "610" at "1" and bring the needle bar into the needle rise position.
- Disconnect the machine from the pneumatic power supply.
- Position the retaining finger 1 by hand.
- Turn screw 2 (nut 3) in accordance with the requirement.
- Switch off the machine.

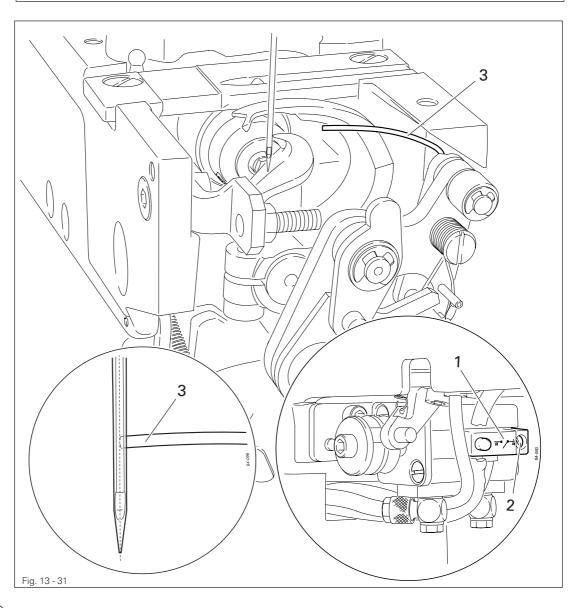


Make sure that retaining finger 1 does not touch the loop spreader when retracted.

13.33 Adjusting the reed switch

Requirement

When parameter "610" is set at "1" and the machine is in the needle rise position, the reed switch 1 should operate exactly at the moment when the tip of the retaining finger 3 is positioned at the centre of the needle.

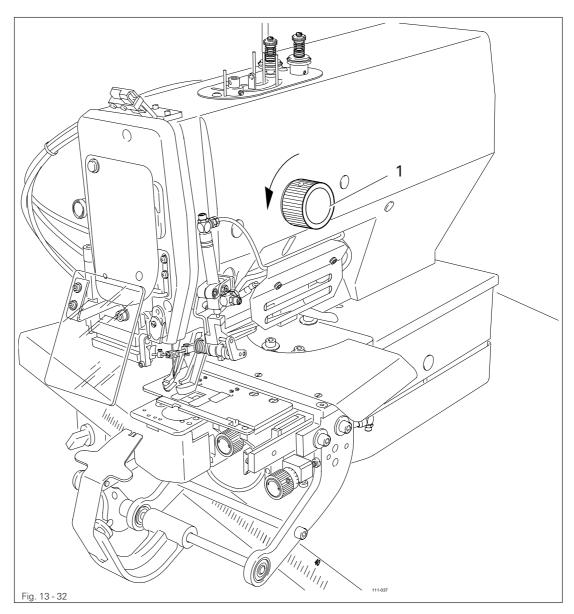




- Switch on the machine, set parameter "610" at "1" and bring the needle bar into the needle rise position.
- Loosen screw 1 and move the reed switch 2 completely to the right.
- Place the point of the retaining finger at the centre of the needle and hold it in this position.
- Move reed switch 2 to the left, until reaching the switch point.
- Fasten screw 1.
- Check the switch status of reed switch 2 with parameter "602" (position 4).
- Switch off the machine.

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13.34 Setting the angle for the end knotting (only on subclasses -1/.. and -4/..)





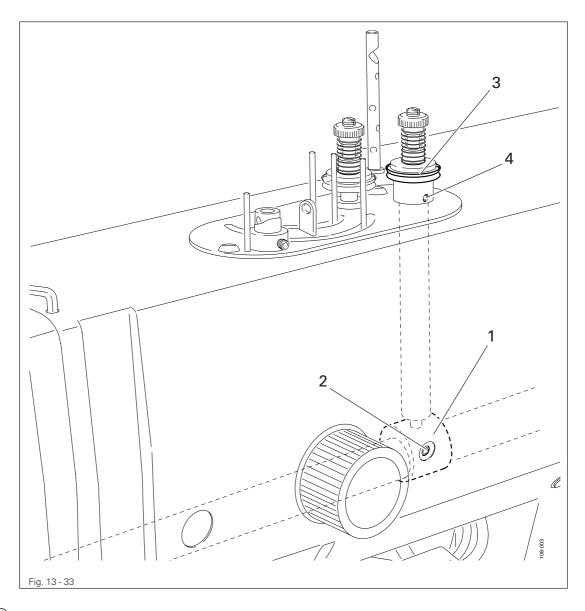
- Switch on the machine.
- Switch on the end knotting function, see Chapter 11 Input
- By turning the balance wheel 1 to "36" set parameter "506" (engaging position).
- By turning the balance wheel 1 to "52" set parameter "507" (disengaging position).
- Carry out ten sewing operations. Select parameter "604" and interpret the values for the engaging and disengaging position of the last ten sewing operations.
 For uneven values (engaging position) the value should be "70".
 For even values (disengaging position) the value should be "90".
- Change parameters "506" and "507" accordingly, a deviation of +/- 1 is permitted.
- Switch off the machine.

Adjustment

13.35 Adjusting the moment tension

Requirement

- 1. When the needle bar is at its t.d.c. eccentric 1 should be positioned with its largest eccentricity towards the top.
- 2. Tension disks 3 should open approx. 10 mm before t.d.c. needle bar and close again approx. 10 mm after t.d.c. needle bar.





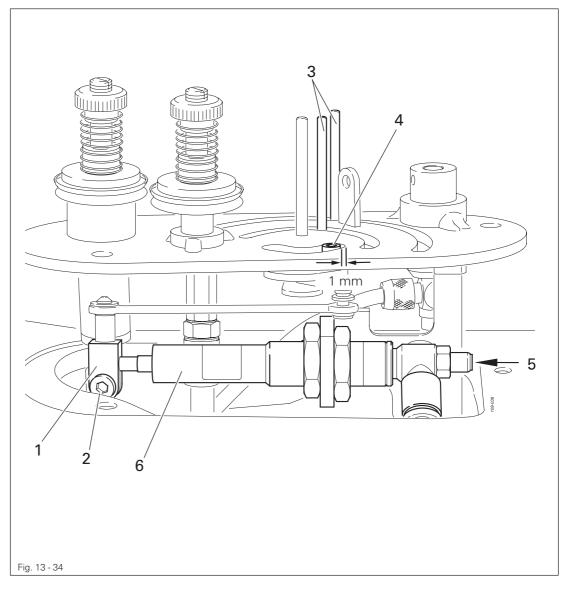
- Turn eccentric 1 (screws 2) in accordance with requirement 1.
- Adjust tension disks 3 (screw 4) in accordance with requirement 2.

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13.36 Adjusting the thread puller

Requirement

- 1. When cylinder **6** is retracted, screw **4** should be at a distance of approx. **1 mm** from the inside edge of the slot.
- 2. When thread puller **3** is in its basic position, it should be resting lightly on the thread and should not touch the edge of the slot when cylinder **6** is extended.
- 3. The thread should be pulled evenly without any jerks.
- 4. Thread puller **3** should be set so that a reliable sewing start is guaranteed, but no start thread is standing out.





- Adjust clamp 1 (screw 2) in accordance with requirement 1.
- Adjust thread puller 3 (screw 4) in accordance with requirement 2.
- First of all, close throttle 5 completely and then adjust it in accordance with requirement 3.
- Adjust thread puller with screw 4 in accordance with requirement 4.

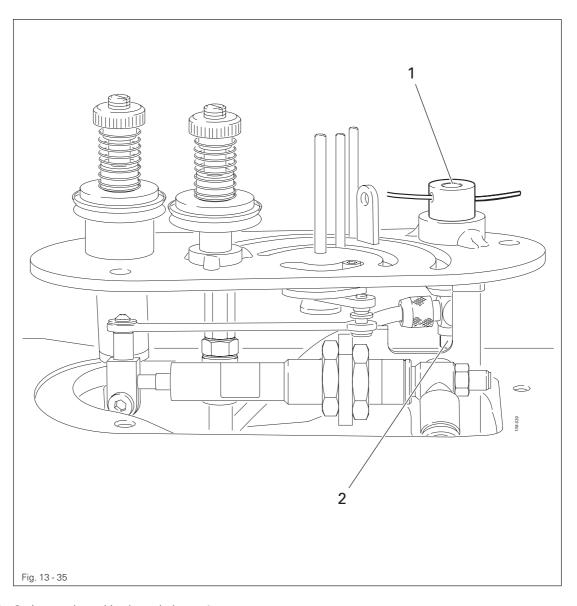


If required deviations from this basic setting of thread puller 3 are possible.

13.37 Adjusting the thread clamp

Requirement

When thread clamp 1 is closed, the thread should be clamped reliably without being cut.





- Insert thread in thread clamp 1.
- Carry out a functional test for the thread clamp with parameter "603" (output 3).
- First of all, close throttle 2 completely and then adjust it in accordance with requirement.



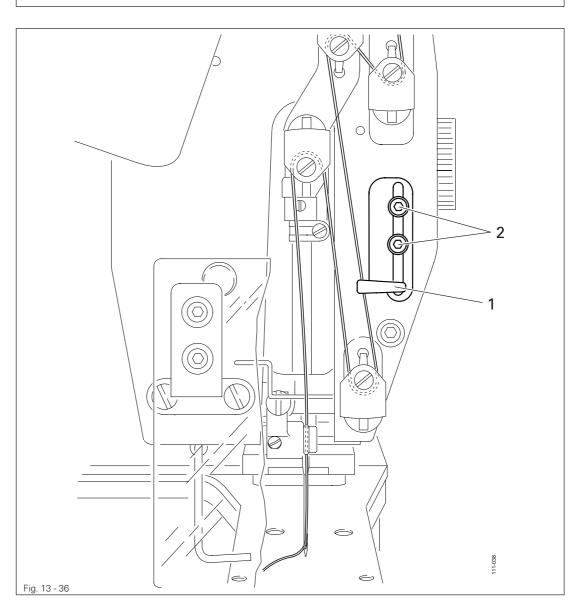
Following the adjustment, parameters "504", "508" and "510" must be checked, and adapted if necessary.

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13.38 Adjusting the thread regulator

Requirement

When the needle bar is at its b.d.c., the slack needle thread should have been used.





- Switch on the machine and connect it to the pneumatic power supply.
- Place the workpiece in position and start the sewing operation.

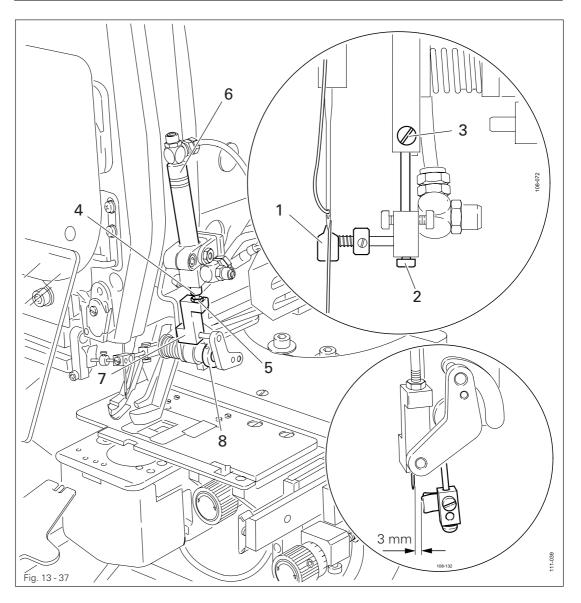


- Interrupt the sewing operation and bring the needle bar to its b.d.c. by turning the balance wheel.
- Adjust the thread regulator 1 (screws 2) in accordance with the requirement.
- Switch off the machine and disconnect it from the pneumatic power supply.

13.39 Adjusting the thread wiper

Requirement

- 1. In cutting position, the thread wiper 1 should be centred to the needle, and with the needle bar at t.d.c. it should swing though under the needle without contact.
- 2. When the cylinder 6 is extended, bearing block 7 should not collide with adjusting ring 8, and thread wiper 1 should be approx. 3 mm behind the needle.





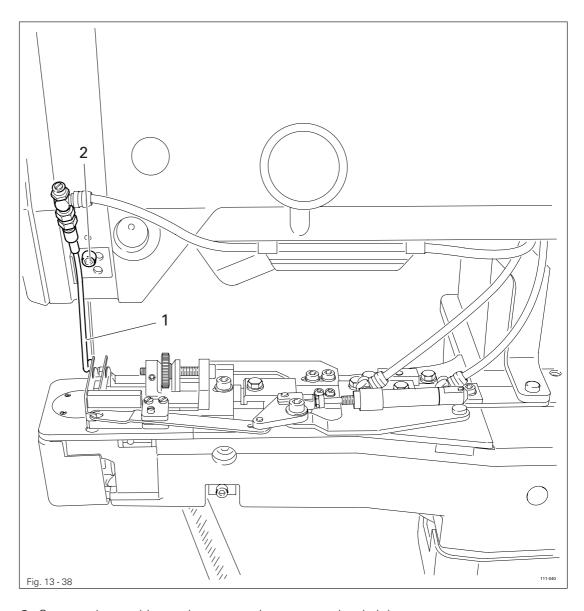
- Connect the machine to the pneumatic system and switch it on.
- Engage thread wiper 1 using parameter "603".
- Adjust thread wiper 1 (screws 2 and 3) in accordance with requirement 1.
- Adjust piston rod 4 (nut 5) in accordance with requirement 2.
- Set parameter "403" to its maximum value.
- Check the setting during the sewing process and correct it if necessary.
- Reset parameter "403".
- Switch off the machine and disconnect it from the pneumatic system.

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13.40 Adjusting the thread air jet

Requirement

When the workpiece is removed, the thread should be blown aside reliably.



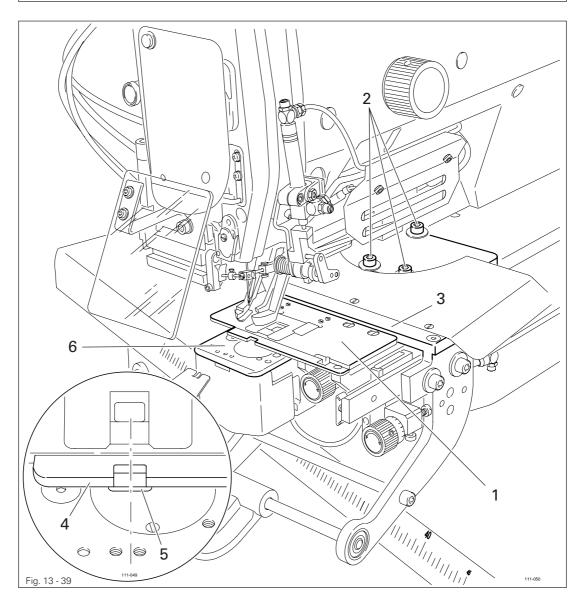


- Connect the machine to the pneumatic system and switch it on.
- Set parameter "209" at value "II" (switch on air jet)
- Set the value for parameter "210" (start time) and air jet 1 (screw 2) in accordance with the requirement.
- Switch off the machine and disconnect it from the pneumatic system.

13.41 Aligning the holder of the blind stitching guide (only on the PFAFF 3307-3/01)

Requirement

- 1. The cut-out of blind stitching guide 4 should be centred to needle hole 5.
- 2. Blind stitching guide 4 should be parallel with the back edge of needle plate 6.





- Move holder 1 (screws 2) against frame 3 and adjust it in accordance with the requirements.
- Connect the machine to the pneumatic system and switch it on.



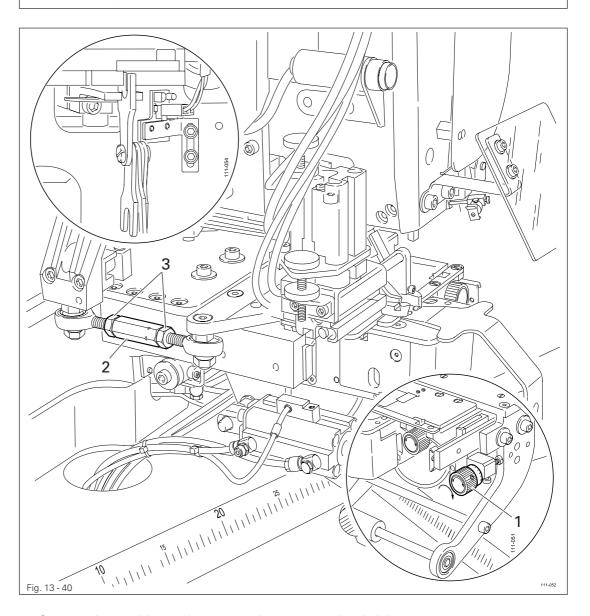
- Check the setting by switching the seam program "sew-through button attachment" on and off.
- If necessary, correct the setting.
- Switch off the machine and disconnect it from the pneumatic system.

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13.42 Basic position of the blind stitching guide (only on the PFAFF 3307-3/01)

Requirement

When the clamp drive unit is in its basic position, the front edge of the blind stitching guide and the rear edge of the needle hole should be flush with each other.





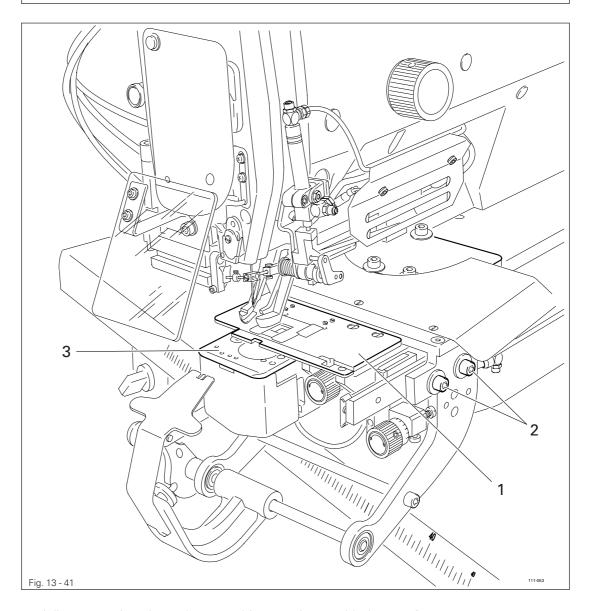
- Connect the machine to the pneumatic system and switch it on.
- Switch on the seam program "sew-through button attachment" (LED is on).
- Block the clamp drive unit with the needle rise gauge.
- Turn adjustment wheel 1 as far as possible in the "+" direction.
- Adjust nut 2 (nuts 3) in accordance with the requirement.
- Switch off the machine and disconnect it from the pneumatic system.

Adjustment

13.43 Adjusting the height of the mounting plate (only on the PFAFF 3307-3/01)

Requirement

During its entire movement mounting plate 1 should move freely and with a minimum amount of play parallel over needle plate 3, without touching it.





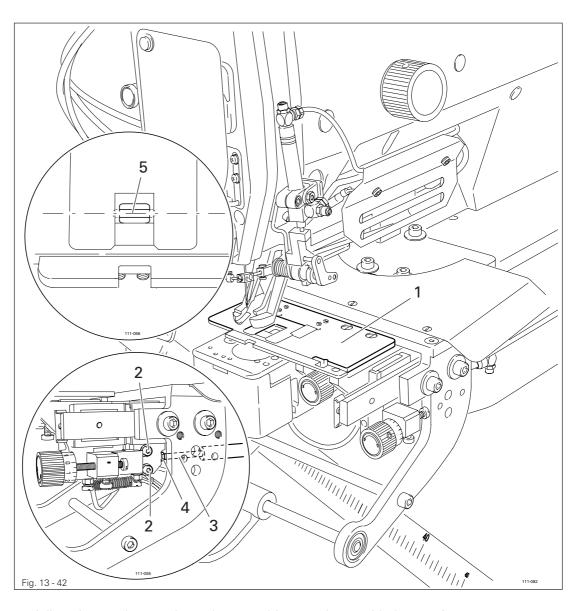
• Adjust mounting plate 1 (screws 2) in accordance with the requirement.

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13.44 Basic position of the stay button plate (only on the PFAFF 3307-3/01)

Requirement

The cutout of stay button plate 1 should be centred to needle hole 5.





• Adjust the stay button plate 1 (screws 2) in accordance with the requirement.

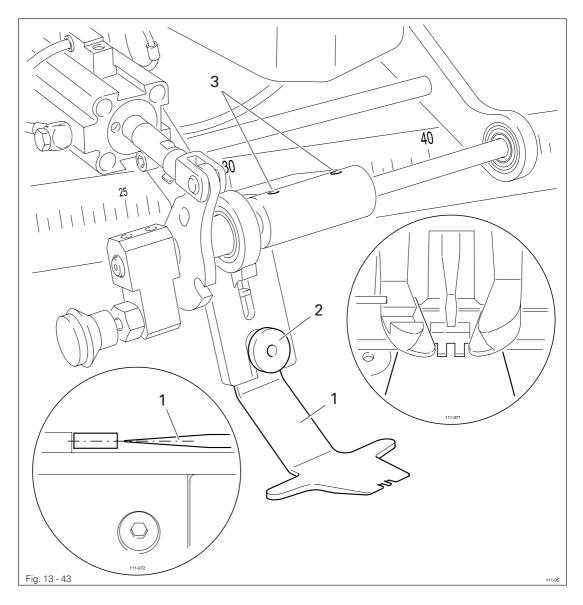
In case of a major deviation:

• Adjust piston rod 3 (nut 4) in accordance with the requirement.

13.45 Adjusting the insert plate (only on the PFAFF 3307-3/01)

Requirement

Insert plate 1 should be centred to the cutout of the blind stitching guide both laterally and in its height.





- Connect the machine to the pneumatic system and switch it on.
- Switch on the seam program "sew-through button attachment" (LED is on).
- Adjust the height of the insert plate 1 (screw 2) in accordance with the requirement.
- Adjust the lateral position of insert plate 1 (screws 3) in accordance with the requirement.
- Switch off the machine and disconnect it from the pneumatic system.



If necessary, the height of the insert plate must be adjusted in accordance with the thickness of the workpiece

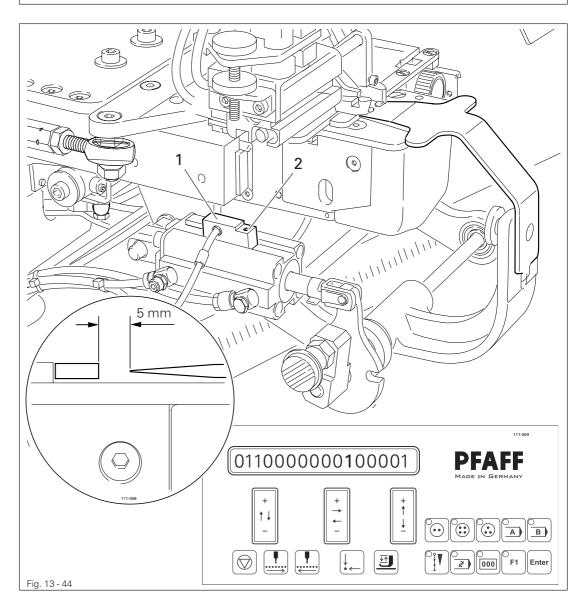
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13.46 Adjusting the reed switch for the insert plate

(only on the PFAFF 3307-3/01)

Requirement

The reed switch should connect when the insert plate is **5 mm** in front of the blind stitching guide plate (parameter "602", the sixth figure changes from "0" to "1").



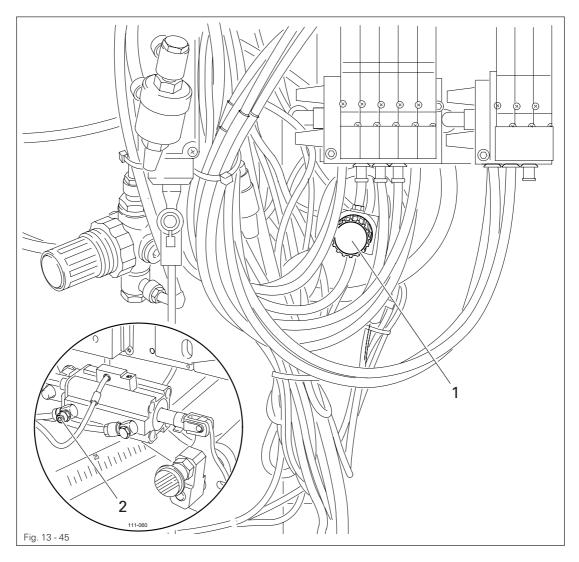


- Switch on the machine.
- Call up parameter "602".
- First slide back reed switch 1 (screw 2) completely and then adjust it in accordance with the requirement.
- Switch off the machine.

13.47 Insert plate pressure (only on the PFAFF 3307-3/01)

Requirement

- 1. The insert plate should move the workpiece against the blind sewing guide with a slight amount of pressure but reliably.
- 2. At the end of the sewing cycle, the insert plate must retract smoothly, (so that there is no risk of injury to the operator).





- Connect the machine to the pneumatic system and switch it on.
- Turn regulator 1 as far as possible in an anti-clockwise direction.
- Using the balance wheel, bring the needle to its top position.



• Insert the workpiece, engage the insert plate and tact through the sewing cycle, until the machine is in the sewing mode.



- Turn regulator 1 in a clockwise direction in accordance with requirement 1.
- Continue tacting through the sewing cycle to the end.
- Adjust throttle 2 in accordance with requirement 2.
- Switch off the machine and disconnect it from the pneumatic system.



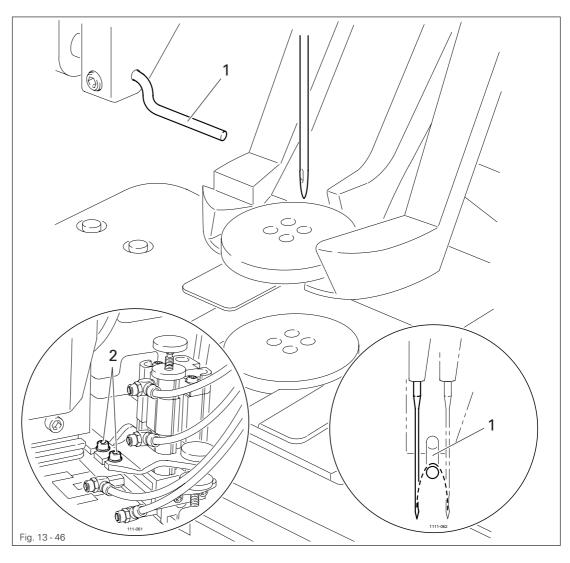
If the insert plate pressure is too high, this may lead to a malfunction of the blind stitch unit.

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13.48 Adjusting the stem finger (only on the PFAFF 3307-3/01)

Requirement

During sewing the needle must not touch stem finger 1.





- Connect the machine to the pneumatic system and switch it on.
- Select the long stem, see Chapter 9.03.03 Selecting the stem length.
- Limit the stem length to 12 mm, see Chapter 9.03.05 Setting the stem length for a long stem.

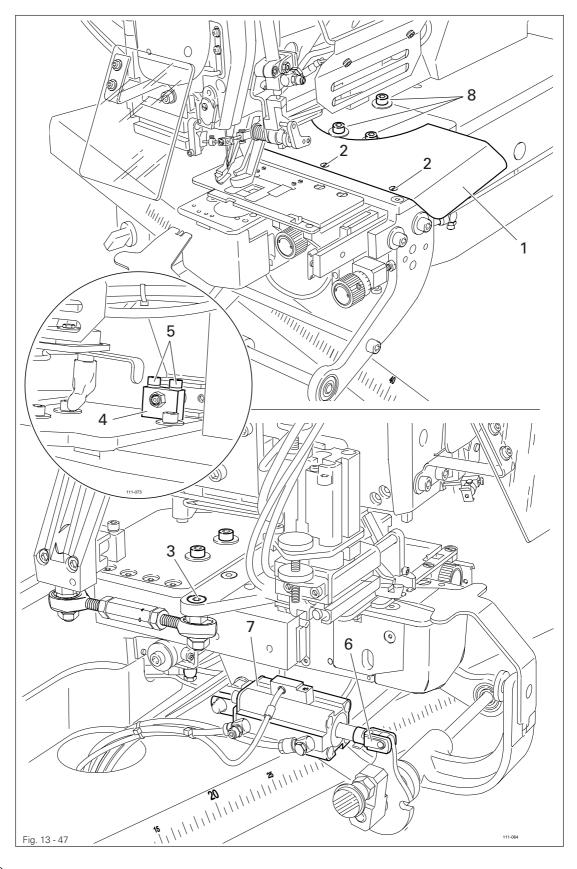


- Using the balance wheel, bring the needle to its top position and tact through the sewing cycle to the first needle entry position.
- Using the balance wheel, position the needle point level with the top edge of the needle plate.
- Adjust stem finger 1 (screw 2) in accordance with the requirement.



- Using the balance wheel, bring the needle to its top position and tact through the sewing cycle to the front needle entry position.
- Using the balance wheel, position the needle point level with the top edge of the needle plate.
- Check the clearance between stem finger 1 and the needle and correct it if necessary.
- Switch off the machine and disconnect it from the pneumatic system.

13.49 Detaching/fitting the blind stitching unit (only on the PFAFF 3307-3/01)





- Remove the cloth plate 1 (screws 2).
- Remove screw 3.
- Disengage the drive rods.

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- Detach bracket 4 (screws 5) together with the cam roller.
- Remove yoke head 6 and pull cylinder 7 off the bearing pin.
- Remove the 3 tube connections to the blind stitching unit.
- Remove the blind stitching unit (screws 8) by pulling it forwards.
- Reassemble in the reverse order.

13.50 Cold start



When a cold start is carried out, all newly created or altered programs, as well as altered parameter settings are deleted!

The machine is set back to its condition at the time of delivery.

The altered programs or parameter settings can be stored separately with the PC-program SAM, see Chapter 13.54 Data backup and protection with PC-program SAM.

Switch on the machine.



Switch to parameter input (LED in the key is not on).



Select the function group "600" with the corresponding plus/minus key.





- Confirm input with Enter.
- Enter the code, see Chapter 11.04.02 Entering/altering the access code.





• With the corresponding plus/minus key select e.g. parameter "608" (carry out cold start).





Confirm input with Enter.

SWITCH OFF

• Switch off the machine twice and on again after about 3 seconds.

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13.51.01 Selecting and altering parameters Switch on the machine. Switch to parameter input (LED in the key is not on). Select the function group, e.g. "200" with the corresponding plus/minus key. 200 Enter • Confirm the input with Enter. • Enter the code, see Chapter 11.04.02 Entering/altering the access code. With the corresponding plus/minus key enter e.g. parameter "102" (button height). 1 102 With the corresponding plus/minus key select "medium button height". 102 2 With the corresponding plus/minus key call up e.g. parameter "209" (air jet). **†** ‡ 209 With the corresponding plus/minus key select "air jet on". 209 ||

13.51

Parameter settings

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End the input by switching to the sewing mode.

13.51.02 Parameter list

Group	Parameter	Description	Setting range	Set value
100	101	Machine software version		0298/x; 0344/x
	102*	Button height (with material) 1 = 0 - 6 mm 2 = 6 - 12 mm 3 = 12 mm and above	1 – 3	1
	103*	Show display during sewing (I = stem height, II = speed)	1, 11	II
	104*	Stem height (incl. button thickness and material) 1 = 0 - 6 mm, 2 = 6 - 12 mm 3 = 12 mm and above	1 – 3	1
	105	Maximum speed [spm]	(500 - 2000)	2000 (subcl3/. 1600 (subcl9/.
	106*	Number of sew-through stitches	1 - 3	1
	108	Time delay during continuous operation	0 – 2s	0,3s
	109	Continuous operation I = off, II = on	1, 11	I
	110	Software version for motor control		Vxx
	111	Software version for thread strength module		Vxx
	113	Sequence input (see Chap. 11.03)		
	114	Sequence (I = off, II = on)	1, 11	I
200	201	Delete program		
	202	Machine version 1 = standard version / self-shank button 2 = with blind stitching 3 = with stem wrapping 4 = with button feed 5 = with outer clamp 6 = tacking	1-6	2 (subcl3/) 3 (subcl9/)
	203	PC connection		
	204*	Cloth plate cut-out size see Ch. 3.02 Seam pattern size	1 – 6	1
	205*	Missed stitch detection (I = off, II = on)	1, 11	I
	206*	Missed stitch detection threshold	0 – 999	120
	207*	Fade-out stitches of the missed stitch detection function	0 – 9	6
	208*	1 – 120 = Display thread strength of last program (max. 120 stitches) 0 = Display calculated optimum threshold (for entering param. "206")	0 -120	xxx

^{* =} only on the PFAFF 3307-3/01

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Group	Parameter	Description	Setting range	Set value
200	209	Air jet (I = off, II = on) When the thread wiper unit is fitted, the air jet must be switched off!	I, II	l
	210	Turn-on time air jet [s]	0 – 10	1
400	401*	Delay time raise clamp [s]	0.00 – 1.50	0.00
	402*	Start delay after lower clamp [s]	0.00 – 1.50	0.00
	403*	Delay before thread trimming	0.00 – 2.00	0.06
	403"	Waiting time until thread wiper is retracted [s]	0.00 – 2.00	0.06
	404*	Thread trimming time	0.00 - 2.00	0.06
	404*	Time thread wiper stays at front [s]	0.00 – 2.00	0.06
	405	Switch time for thread clamp [s]	0.00 – 2.00	0.10
	406	Switch time for thread puller [s]	0.00 – 2.00	0.20
	407	Switch time for thread wiper in basic position	0.00 – 4.00	0.20
	408*	Waiting time for pressure release added feature clamp / insert plate [s]	0.00 – 1.50	1.00
500	501	Soft start stitches Soft start speed [spm]	0 – 15 500 – 2000	1 500
	503	Extra stitches when sewing in same hole (start stitches)	0 – 3	0
	504	Delay time thread clamp at seam start [s]	0.00 - 2.00	0.02
	506*	Angle position for "end knotting on" Software version 0298/xxx Software version 0344/xxx	0 - 127 0 - 127	36 40
	507*	Angel position for "end knotting off" Software version 0298/xxx Software version 0344/xxx	0 - 127 0 - 127	52 70
	508	Number of stitches for "thread clamp closed"at end of seam (number of stitches counted back from last stitch) Angle setting "thread clamp closed"	0 – 3	0
		at end of seam	0 – 127	80

^{* =} only on the PFAFF 3307-3/01; \bullet = only on the PFAFF 3307-9/01

Group	Parameter	Description	Setting range	Set value
500	510	Angle setting for "thread clamp open" in last needle entry before thread trimming	0 – 127	120
	511	Securing stitches before thread trimming	0 – 2	0
	512*	Measuring point of missed stitch detection function with display of the thread strength	0 – 127	115
	513*	Angle setting for "material displacement on"	0 – 127	85
600	601	Move stepping motor clamp and needle		
	602*	Display inputs 0123456789ABCDEF	Meaning of th	e display value
		Position on the Display 0: Not assigned 1: Clamp (X13:1) 2: Not assigned (X13:3) 3: Thread clamp (X13:5) 4: Thread trimming (X13:6) 5: End knotting (X13:7) 6: Thread puller (X13:8) 7: Thread wiper (X13:9) 8: Insert plate (X13:10) 9: Insert plate (X13:11) 10:Material displacement (X13:12) 11:Blind sewing (X13:13) 12:Stem finger (X13:25) 13:Stem (X13:24) 14:Locking (index) (X13:16) 15:Programmable output 1	o lowered open off* off* off* off* passive passive sew through standard retracted long off* - off*	raised* - closed* on on on on advanced retracted prick blind sewing advanced short on - on
	602*	Display inputs 0123456789ABCDEF Position on the Display 0: Not assigned 1: Not assigned 2: Needle in material (NIS) 3: Not assigned (E16 - X5:7) 4: Not assigned (E12 - X5:12)	Meaning of th 0 - - - - -	e display value I - - - - - - -

 $[\]triangleq$ = basic position ; * = only on the PFAFF 3307-3/01; \triangleq = only on the PFAFF 3307-9/01

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Group	Parameter	Description	Setting range	Set value
600	602◆	 5: Not assigned (E11 - X5:11) 6: Not assigned (E10 - X5:10) 7: Not assigned (E9 - X5:9) 8: Programmable input 1 (E8 - X5:16) 9: Programmable input 2 (E7 - X5:15) 	- Meaning of th - -	- e displa y value - - -
		A: Not assigned (E6 - X5:14) B: Not assigned (E5 - X5:5) C: Not assigned (E4 - X5:3) D: Not assigned (E3 - X5:3) E: Reference needle (photoelectric barrier) F: Reference clamp (photoelectric barrier)	- - - switched switched	- - - - not assigned not assigned
	603*	Switch outputs Position on the Display	Meaning of th	e display value
		1: Clamp (X13:1) 2: Not assigned (X13:3) 3: Thread clamp (X13:5) 4: Thread trimming (X13:6) 5: End knotting (X13:7) 6: Thread puller (X13:8) 7: Thread wiper (X13:9) 8: Not assigned (X13:10) 9: Not assigned (X13:11) 10:Not assigned (X13:12) 11:Not assigned (X13:13) 12:Not assigned (X13:25) 13:Not assigned (X13:24) 14:Self-shank button holder (X13:16) 15:Not assigned (X13:17)	0 lowered - open off▲ off▲ off▲ - - - - - off▲	l raised♣ - closed♣ on on on on on -
	603◆	16:Missed stitch lamp (X5:24) Switch outputs Position on the Display	off▲ Meaning of th	on e display value
		1: Spreader (X13:1) 2: Not assigned (X13:3) 3: Thread clamp (X13:5) 4: Thread trimming (X13:6) 5: Not assigned (X13:7) 6: Thread puller (X13:8) 7: Air jet /Thread wiper (X13:9) 8: Not assigned (X13:10) 9: Not assigned (X13:11) 10:Not assigned (X13:12)	on - open off▲ - off▲	l off⁴ - closed⁴ on - on on - -

riangle = basic position ; * = only on the PFAFF 3307-3/01; *= only on the PFAFF 3307-9/01

Group	Parameter	Description	Setting range	Set value
600	603◆	11:Not assigned (X13:13) 12:Not assigned (X13:25) 13:Not assigned (X13:24) 14:Not assigned (X13:16) 15:Programmable output 1 (X13:17) 16:Programmable output 2 (X13:18)	- - - - -	- - - - -
	604	Last engaging and disengaging positions for end knotting		
	605	Needle entry position point in fabric	0 - 127	43
	606	Set reference offset clamp (X) and needle (Y) (correction values for the stepping motors zero points)		(0) (0)
	607	Turn sewing motor in sewing direction		
	608	Carry out cold start		
	610	Needle entry position points for adjustment 1: Centre 2: Max. entry position point right 3: Max. entry position point left 4: Button gauge: centre 5: Button gauge: front left 6: Button gauge: back left 7: Button gauge: back right 8: Button gauge: front right		
	611	Suppression thread trimming (I = OFF, II = ON)	۱, ۱۱	I
	612	Adjusting aid for zero position of stepping motor using synchronisation mark		0
	614	Set cutting position X on right	± 25	5
	615	Set cutting position X on left	± 25	8
700	701	P-quota speed controller	1 - 50	10
	702	I-quota speed controller	0 - 100	50
	703	P-quota position controller	1 - 50	20
	704	D-quota position controller	1 - 100	30
	705	Time for position controller	1 - 100	25

riangle = basic position ; * = only on the PFAFF 3307-3/01; riangle = only on the PFAFF 3307-9/01

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Group	Parameter	Description	Setting range	Set value
700	706	P-quota position controller for rest brake	1 - 50	25
	707	D-quota position controller for rest brake	1 - 50	15
	708	Maximum moment for rest brake	0 - 100	0
	709	Minimum machine speed	3 - 64	6
	710	Maximum machine speed	100 - 2000	2000
	711	Maximum motor speed	0 100	45
	712	Positioning speed	3 - 35	25
	713	Acceleration ramp	1 - 50	35
	714	Brake ramp	1 - 50	30
	715	Reference position	1 - 127	43
	716	Time-out	0 - 255	40
	717	Starting current motor	3 - 10	7
	718	Anti vibration filter	1 - 10	3
	719	Rotation direction allocation	0 - 1	1
	720	Reference position correction	0 - 127	64
800	801	Right of access function group 100	0 - 1	0
	802	Right of access function group 200	0 - 1	1
	803	Right of access function group 300	0 - 1	1
	804	Right of access function group 400	0 - 1	1
	805	Right of access function group 500	0 - 1	1
	806	Right of access function group 600	0 - 1	1
	807	Right of access function group 700	0 - 1	1
	808	Right of access function group 800	0 - 1	1
	809	Right of access key max. speed	0 - 1	0
	810	Right of access key program number selection	0 - 1	0

^{■0 =} free access, 1 = access only with code input

Group	Parameter	Description Setting range		Set value
800	811	Right of access key piece counter	0 - 1	0
	812	Right of access F1 key	0 - 1	0
	813 Right of access key two-hole button 814 Right of access key four-hole button		0 - 1	0
			0 - 1	0
	815	Right of access key three-hole button	0 - 1	0
	816	Right of access key program group A	0 - 1	0
	817	Right of access key program group B	0 - 1	0
818		Right of access programming key	0 - 1	0
	819	Enter access code (status on delivery: 3307)	0 - 9999	3307

^{■0 =} free access, 1 = access only with code input

13.52 Error messages on the display

Error System error

Error 2 Sewing motor

30: Time out + motor defect

20: Time out + motor defect

10: Speed + motor defect

0B: StopX + motor defect

0A: Reset stitch counter + motor defect

Write parameter + motor defect

Position tdc shortest path + motor defect

Position tdc backwards + motor defect 3:

Position tdc forwards + motor defect 2:

Error 3 Input feed plate in (E6 - X5:14)

Error 4 Missed stitch with needle entry position number or end knotting

error with needle entry position number

Error Clamp entrance at bottom (E4 – X5:4) switch clamp locked as main

drive not in t.d.c. position

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Error	8	Stitch length
Error	9	Seam outside area
Error	10	1 Error when moving the machine into home position, outputs not finished
		2 Raise clamp – no reaction/sub-class may be incorrect
		3 Insert position not reached
		6 Foot pedal operated
		7 X-centre not reached
		8 still at X-centre
		9 Y-centre not reached
		10 still at Y-centre
		11 time control home test
		12 Absolute position –0.3 not reached home test
		13 Absolute position +0.6 not reached home test
		14: Main drive unit has not reached t.d.c. position
Error	11	Stepping motor step frequency too high
Error	12	Error in sewing program
Error	13	Set position of stepping motor outside sewing area
Error	14	Time control outputs 3: Thread clamp 6: Thread wiper 10: Material displacement 15: Programmable output 1
Error	15	Input signal not received
Error	16	Delay time with running sewing drive not permitted
Error	17	Cutting without sewing
Error	18	Incorrect command in data set
Error	19	Incorrect program number
Error	20	not assigned
Error	21	Power supply unit overload (24 V)
Error	22	Mains voltage
Error	23	Power supply unit 24 V too strong / too weak
Error	24	No stepping motor movement prepared (needle in material)
_	0.5	

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25 Stepping motor not started yet (needle in material)

Error	27	1	Error on PC-interface Receiver Timeout
		2	Transmitter Timeout

- 3 Transmission error
- 4 Receiving buffer overflow
- 5 Data error
- 6 Answer too long
- 7 No ASCII HEX
- 8 Inadmissible program number
- 9 Incorrect command syntax
- 10 No number
- 11 Unknown command

Error 29 CAN-ERROR

- 1 Timeout
- 2 Incorrect answer
- 4 Data lost
- Error 30 End knotting error with stitch entry number

13.53 Motor errors

- 34 Brake path too short
- 35 Communication error
- 36 Initialisation not completed
- 65 Extint low at Init
- 66 Short circuit
- 68 Extint low in operation
- 69 No increments
- 70 Motor blocking
- 71 No incremental connector
- 73 Motor running interrupted
- 75 Controller locked
- 170 Invalid transmission
- 171 Zero mark invalid
- 175 Interior start error
- 222 Time-out monitoring

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13.54 Data backup and protection with PC-program SAM

For the data transfer the PC and the machine are connected to each other with a null modem cable (part-no. 91-291 998-91).

- Switch off the machine and the PC.
- Connect the serial interface (RS232 see Page 8-3) and serial PC-interface (COM 1-4) with the cable provided.
- Switch on the PC. If necessary install SAM with the installation CD provided.
- Start SAM ("Start" "Programme" "SAM") and set the corresponding COM-interface in the
- "settings" menu. In the "Machine" menu 3307 must be selected.
- Switch on the machine.
- Select parameter "203" on the machine.



- Press Enter.
- "203 ONLINE" appears on the display and the machine is in the slave mode, i.e. all other operations will be started by SAM.
- Set up a connection to the machine using the SAM-menu "Setting up a machine connection".
- If the connection was set up successfully, the data backup item of the SAM menu is activated.



Either a complete (all data and programs) or selective data backup or protection can be carried out. For this purpose the name of a backup database must be entered, or a previously created backup database selected. The name of the backup database can be chosen freely, but the character string "3307" must be part of it.

- After the data has been transferred successfully, the connection to the machine can be disconnected with the SAM menu "Machine – terminate the connection". The machine leaves the slave mode and changes to the function group 200.
- Switch off the machine.
- Remove the cable from the serial interface (RS232).

13.55 Internet update of the machine software

The machine software can be updated with PFAFF flash programming. For this purpose the PFP boot program and the appropriate control software for the machine type must be installed on a PC. To transfer the data to the machine, the PC and the machine control unit must be connected with an appropriate null modem cable (part no. 91-291 998-91).



The PFP boot program and the control software of the machine type can be downloaded from the PFAFF-homepage using the following path:

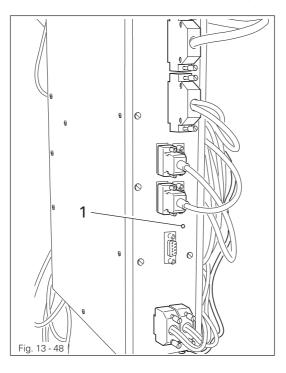
www.pfaff-industrial.com/de/service/download/steuerungssoftware.html

To update the machine software carry out the following steps:



While the machine software is being updated, no setting up, maintenance or adjustment work may be carried out on the machine!

- Switch off the machine.
- Connect PC (serial interface or corresponding USB adapter) to machine control unit (X1A).



- Switch on the PC and start the PFP boot program.
- Select the machine type.
- Press the "programming" button.
- Switch on the machine, keeping the boot key 1 pressed.
- Press the "OK" button.
 The software update is carried out, the update progress is shown on the bar display of the PFP boot program.
- When the update has been completed, switch off the machine and end the PFP boot program.
- Disconnect plug connection between PC and machine control unit.
- Switch on the machine.
 A plausibility control is carried out and, if necessary, a cold start.



More information and assistance is at your disposal in the file "PFPHILFE.TXT", which can be called up from the PFP boot program by pressing the "help" button.

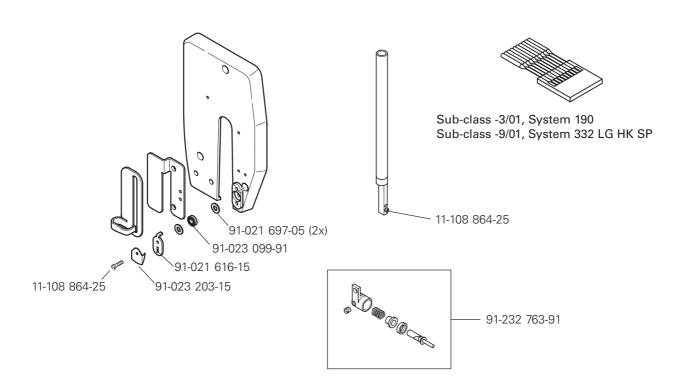
13 - 63 **PFAFF**

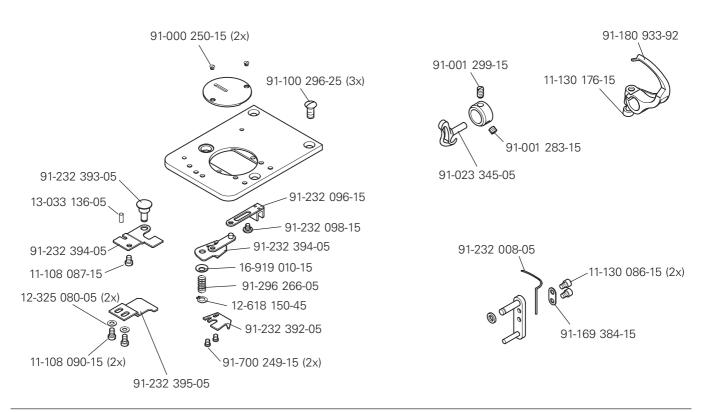
14 Wearing parts



This is a list of the most important wearing parts.

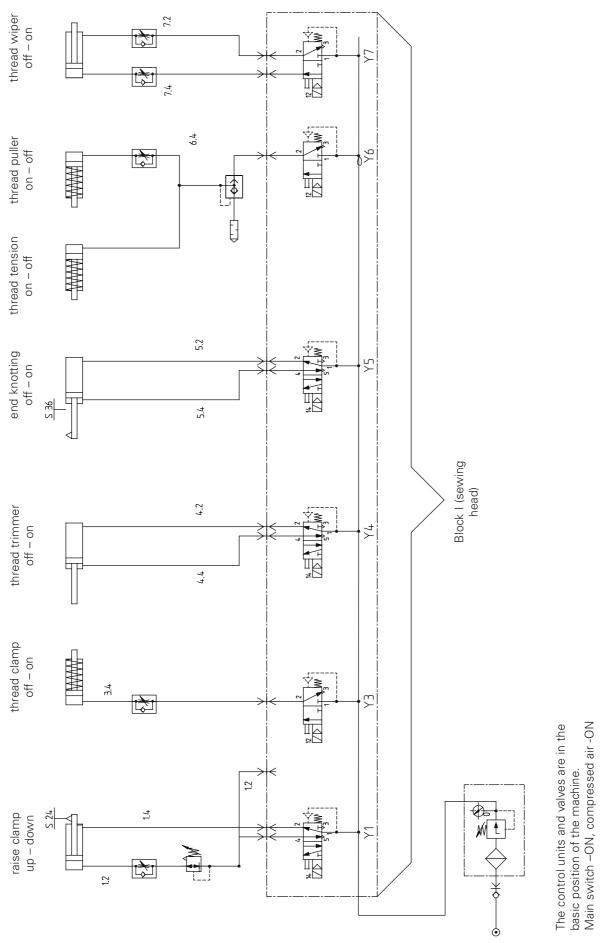
You can order a detailed spare parts list for the complete machine under part no. 296-12-18 893.



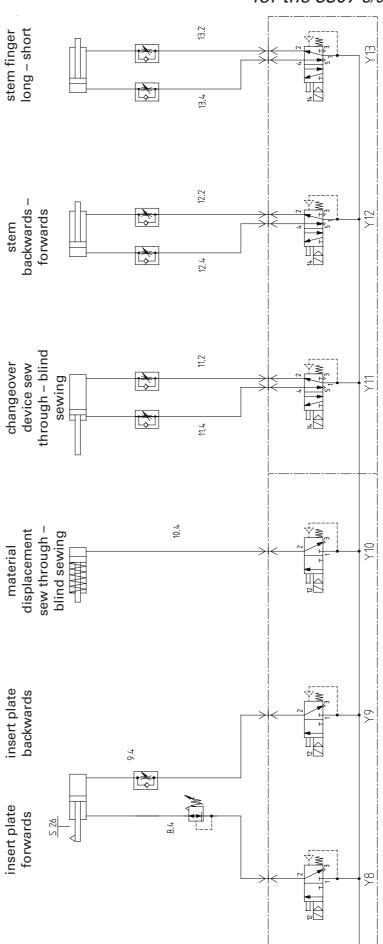


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for the 3307-3/01

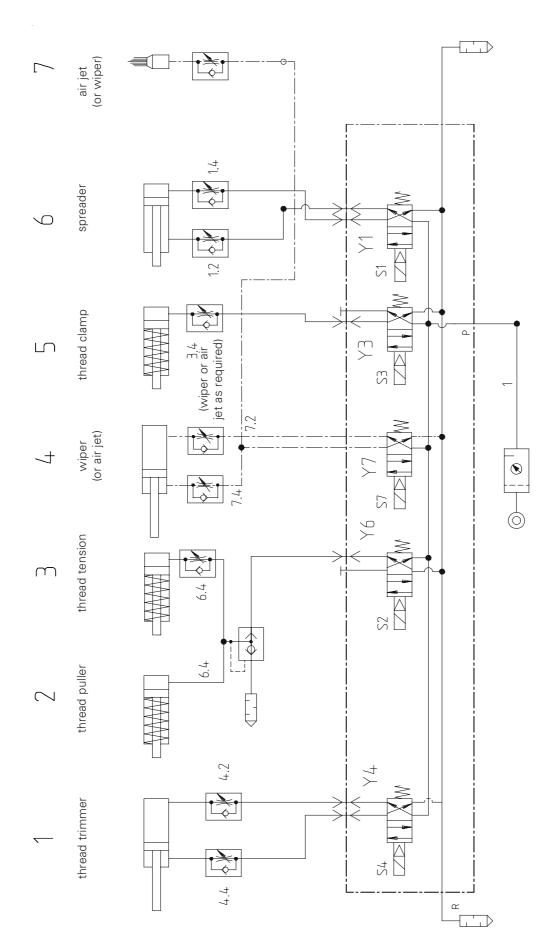


for the 3307-3/01



PFAFF

for the 3307-9/01



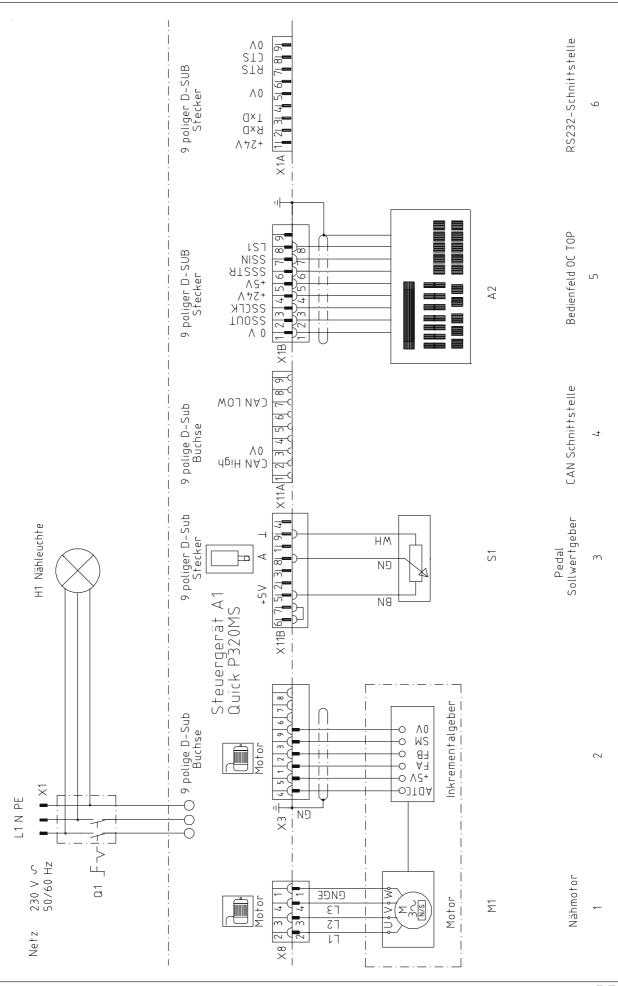
15 - 3 **PFAFF**

Circuit diagrams

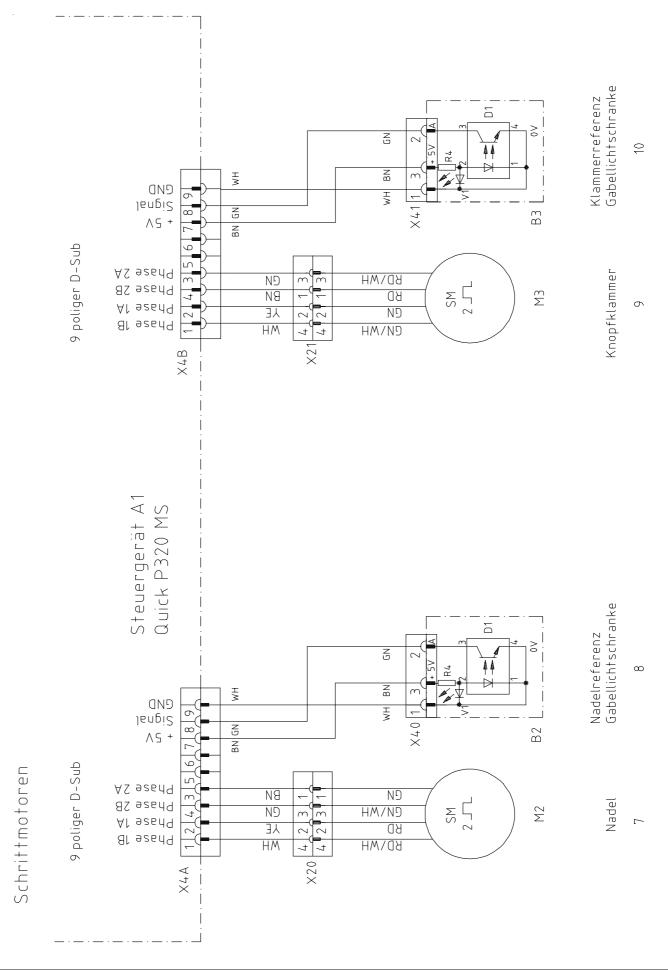
Reference list for circuit diagrams of the PFAFF 3307-3/01 (91-191 459-95)

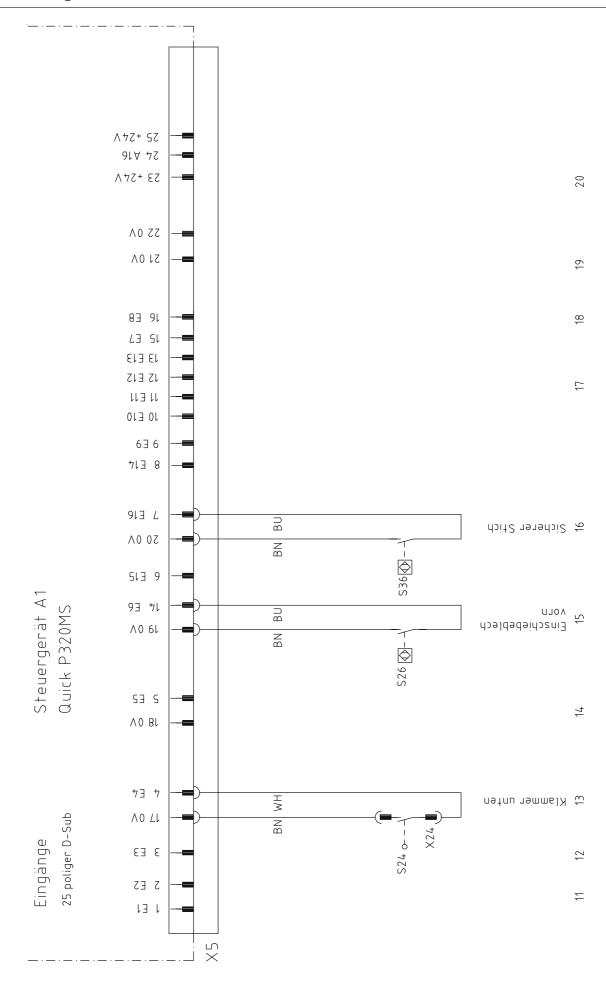
A1	Controller Quick P320MS	X54	Thread trimming
A2	Control panel OC TOP-automatic 3307	X55	End knotting
A100	Thread strength module	X56	Thread puller
A110	Thread strength alarm + reset	X57	Wiper
71110	Through out on gent didn't it is to be	X 58	Insert plate forwards
B2	Hybrid light barrier needle reference	X59	Insert plate backwards
B3	Hybrid light barrier clamp reference	X60	Material displacement
B100	Thread strength sensor	X61	Blind sewing
БТОО	Throad Strongth School	X62	Stem finger
H1	Sewing lamp	X63	Stem long
H101	Lamp alarm	X101	Thread strength module sensor
11101	Lamp diami	XIOI	+ supply
M1	Sewing motor	X102	Thread strength module CAN interface
M2	Stepping motor needle	X 103	Thread strength module RS232
M3	Stepping motor button clamp	X110	Thread strength alarm + reset
IVIO	Stepping motor button clamp	X110 X111	Thread strength sensor
Q1	Main switch	X111	Thread strength sensor Thread strength voltage supply
QT	iviairi Svvitori	ATTZ	Thread Strength voltage Supply
S1	Pedal speed control unit	Y1	Clamp open
S24	Key button clamp lowered	Y3	Thread clamp
S26	Insert plate forwards	Y4	Thread trimming
S36	Solenoid switch secure stitch	Y5	End knotting
S101	Reset key	Y6	Thread puller
	·	Y7	Wiper
X1	Mains plug	Y8	Insert plate forwards
X1A	RS232 – interface 1	Y9	Insert plate backwards
X1B	Control panel OC TOP	Y10	Material displacement
X3	Incremental transmitter (sewing motor)	Y11	Blind sewing
X4A	Stepping motor needle and hybrid	Y12	Stem finger
	light barrier	Y13	Stem long
X4B	Stepping motor button clamp and		
	hybrid light barrier		
X5	Inputs		
X8	Sewing motor		
X11	A CAN interface		
X11	B Pedal speed control unit		
X13	Outputs		
X20	Stepping motor needle		
X21	Stepping motor button clamp		
X40	Hybrid light barrier needle reference		
X41	Hybrid light barrier button clamp		
	reference		
X51	Clamp open		
X53	Thread clamp		

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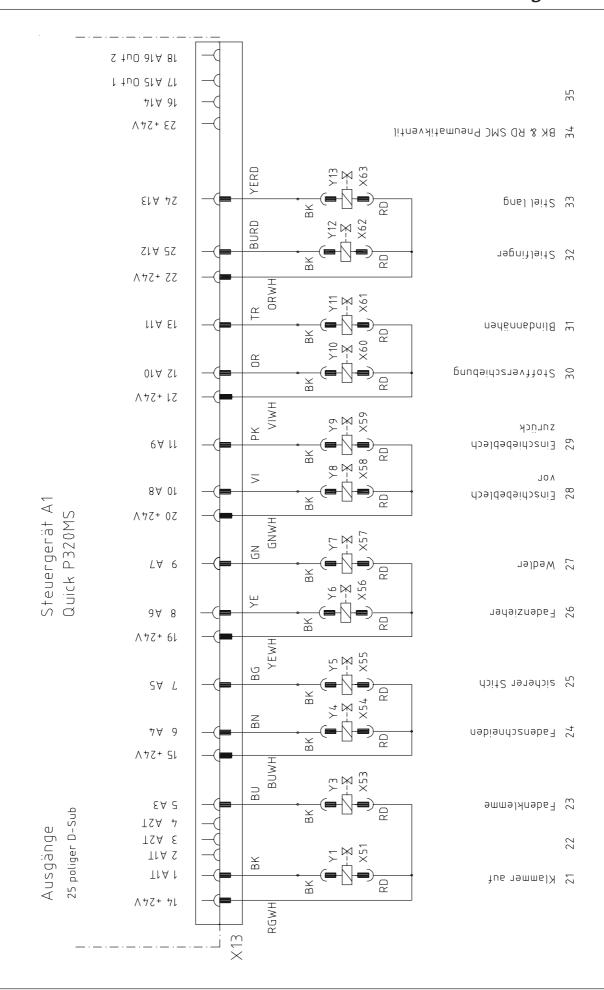


15 - 5 **PFAFF**

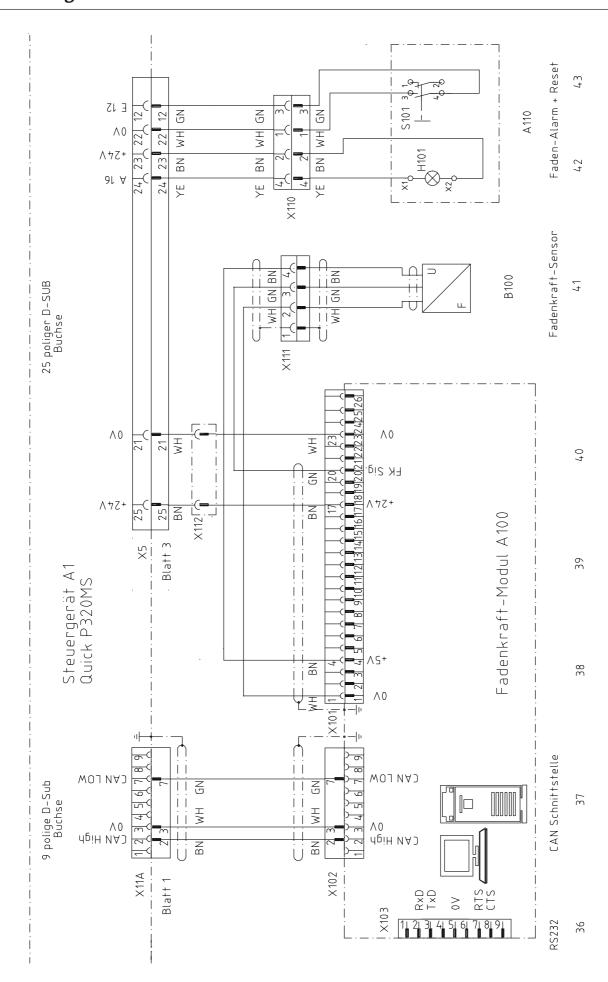




15 - 7 **PFAFF**



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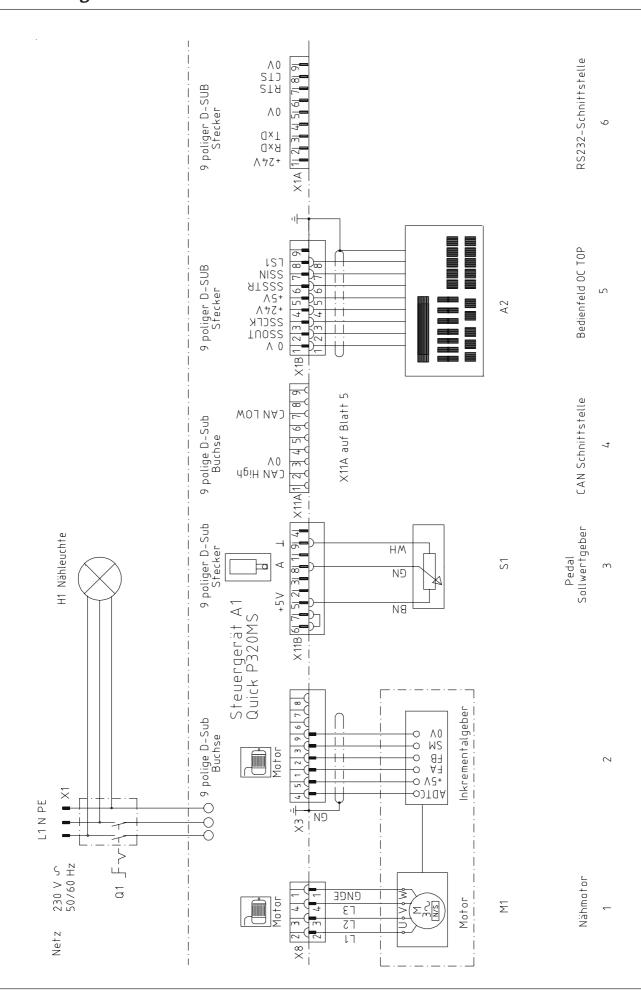
15 - 9 **PFAFF**

Referenzliste zu den Stromlaufplänen der PFAFF 3307-9/01 (91-191 484-95)

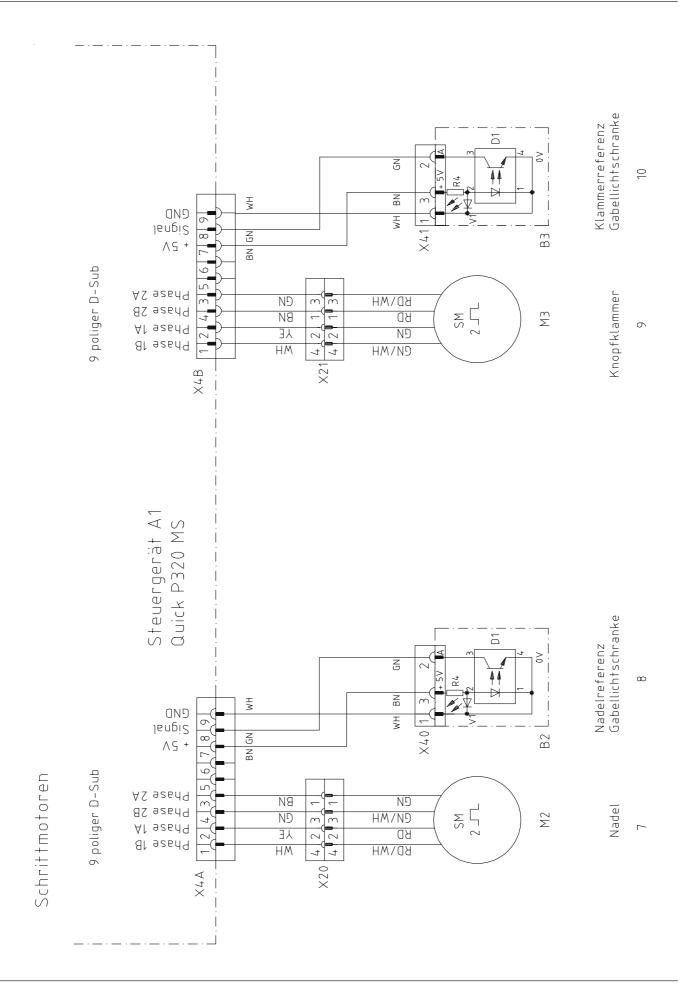
A1	Controller Quick P320MS	X51	Clamp open
A2	Control panel OC TOP-	X53	Thread clamp
	automatic 3307	X54	Thread trimming
A100	Thread strength module	X55	End knotting
A110	Thread strength alarm + reset	X56	Thread puller
		X57	Thread wiper
B2	Hybrid light barrier needle reference		
В3	Hybrid light barrier clamp reference	X101	Thread strength module sensor
B100	Thread strength sensor		+ supply
		X102	Thread strength module CAN interface
H1	Sewing lamp	X 103	Thread strength module RS232
H101	Lamp alarm	X110	Thread strength alarm + reset
		X111	Thread strength sensor
M1	Sewing motor		
M2	Stepping motor needle	Y1	Clamp open
M3	Stepping motor button clamp	Y3	Thread clamp
		Y4	Thread trimming
Q1	Main switch	Y5	End knotting
		Y6	Thread puller
S1	Pedal speed control unit	Y7	Thread wiper
S36	Solenoid switch end knotting		
S101	Reset key		
X1	Mains plug		
X1A	RS232 – interface 1		
X1B	Control panel OC TOP		
X3	Incremental transmitter		
	(sewing motor)		
X4A	Stepping motor needle and hybrid		
	light barrier		
X4B	Stepping motor button clamp and		
	hybrid light barrier		
X5	Inputs		
X8	Sewing motor		
X11A	CAN interface		
X11B	Pedal speed control unit		
X13	Outputs		
X20	Stepping motor needle		
X21	Stepping motor button clamp		
X34	Key button clamp lowered		
X40	Hybrid light barrier needle reference		
X41	Hybrid light barrier button clamp		
	•		

PFAFF 15 - 10

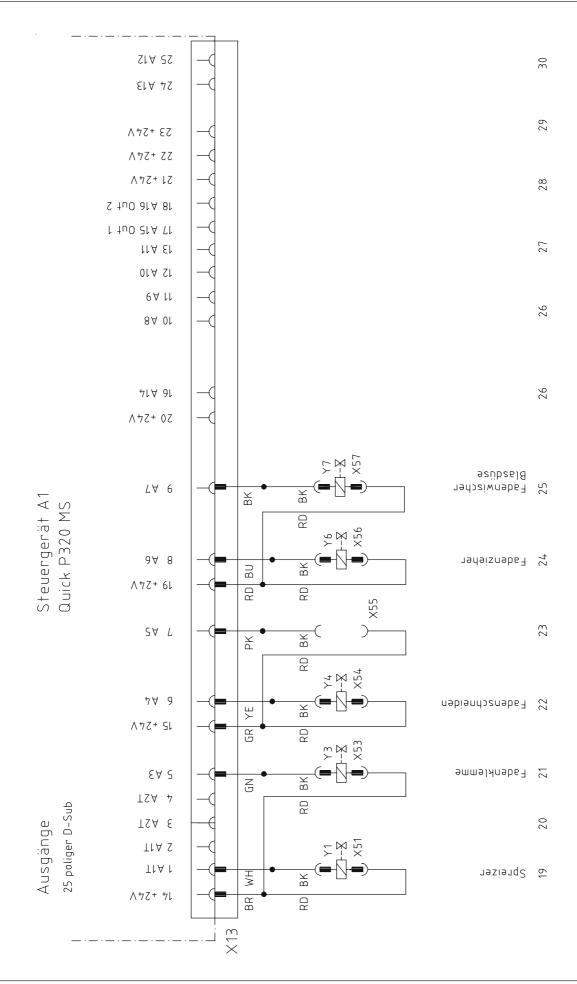
reference



15 - 11 **PFAFF**



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15 - 13 **PFAFF**



Notes		



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Gedruckt in der BRD Printed in Germany Imprimé en R.F.A. Impreso en la R.F.A.