

937

Instruction Manual

This instruction manual applies to machines from the following serial numbers onwards:

2705763 ---



This Instruction Manual is valid for all models and subclasses listed in the chapter " 3 Specifications ".



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

www.pfaff-industrial.com/de/service/download/index.php3.

As an alternative to the internet download the adjustment manual can also be ordered in book form under part no. 296-12-18 587/002.

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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 (e.g. needle, presser foot, needle plate, feed dog or bob-bin), during threading, when the workplace is left unattended and during maintenance work, the machine must be isolated from the power supply by turning off the on/off switch or removing the plug from the mains!
- Daily maintenance work must only be carried out by appropriately trained persons!
- Repairs and special maintenance work must only be carried out by qualified technical staff or persons with 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 bobbin and needle, cleaning etc. switch off 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.

1 - 2 **PFAFF**

1.05 Notes for operating and technical staff

1.05.01 Operating staff

Operating staff are the persons responsible for setting up, operating and cleaning the machine and for 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!

PFAFF 1 - 3

1.06 Danger



A working area of 1 meter is to be kept free both in front of and behind the machine while it is in operation so that it is always easily accessible.



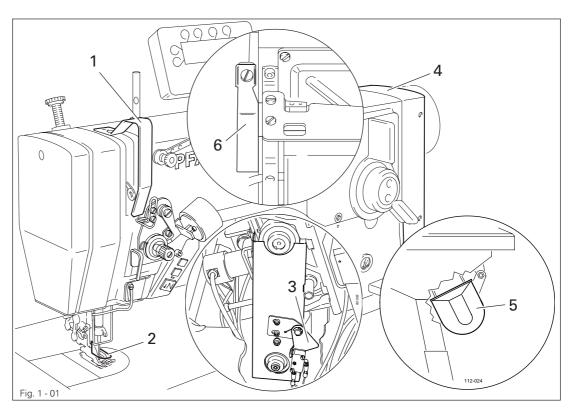
Never reach into the sewing area while sewing! Danger of injury by the needle!



Never leave objects on the table while adjusting the machine settings! Objects can become trapped or be slung away! Danger of injury!



Bei mechanisch betätigten Kupplungsmotoren ohne Betätigungssperre ist der Stillstand des Motors abzuwarten! Verletzungsgefahr!





Do not operate the machine without the take-up lever guard 1! Danger of injury through the movement of the take-up lever.



Do not operate the machine without finger guard 2! Danger of injury from the needle!



Do not operate machines with Quick-flange motor without start inhibitor 3! Danger of injury if the machine is started accidentally!



Do not operate machines with Quick-underfloor motor without belt guard 4 and 5. Danger of injury from the drive belts!



Do not operate the machine without tilt lock 6! Danger of crushing between sewing head and table top!

2 Proper use

The **PFAFF 937** is a high-performance high-speed zigzag sewing machine with bottom feed and an adjustable top feed.

These machines are designed for producing topstitch zigzag seams in the apparel and linen goods industries.



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

PFAFF 2 - 1

Specifications

3 Specifications

3.01 PFAFF 937▲

itch types:				
eedle system: 438				
Needle thickness (Nm) in 1/100 mm: Model B:	80 - 100			
Max. stitch length:				
Max. stitch with:	6,0 mm			
Effective diameter of handwheel:	65 mm			
Max. speed:	5000 spm •			
Clearance under the presser foot: Fabric clearance width: Fabric clearance height:	260 mm			
Dimensions of machine head: Length: Width: Height (above table): Bedplate dimensions:	approx. 180 mm approx. 300 mm			
Connection data: Operating voltage: Max. power Fuse protection:	1,2 kVA			
Working air pressure: Air consumption:				
Noise data: Noise emission level at workplace with a sewing speed of 4000 spm: L_{pA} < 80 dB(A) • (Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)				
Net weight of machine head: Gross weight of machine head:				

- ▲ Subject to alterations
- ◆ Dependent on material and work operation
- $K_{pA} = 2.5 \text{ dB}$
- $\mathbf{0}$ = 2.5 mm feed stroke of the bottom and 4.5 mm feed stroke of the top feed dog

3 - 1 **PFAFF**

Specifications

3.02 Versions and subclasses

for sewing medium materials	Version B:
	Work aids:
thread trimmer	Subclass -900/24
automatic foot lift	Subclass -910/04
automatic back-tacking mechanism	Subclass -911/35
switch unit	Subclass -918/14

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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!

4 - 1 **PFAFF**

Transportation, packing and storage

5 Transportation, packing and storage

5.01 Transportation to customer's premises

The machines are delivered completely packed.

5.02 Transportation inside the customer's premises

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

5.03 Disposal of packing materials

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

5.04 Storage

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

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

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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

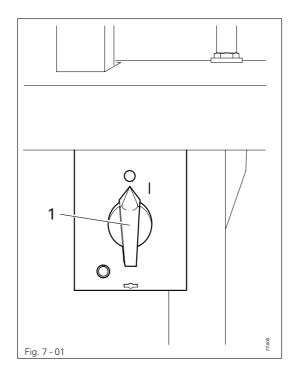


Maintenance, repairs, adjustment, service work (only to be carried out by technical staff)

6 - 1 **PFAFF**

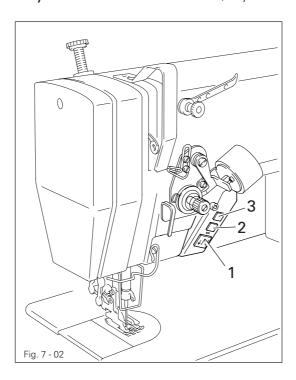
7 Controls

7.01 Main switch



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

7.02 Keys on the machine head (only on machines with Quick-Eco-Drive-motor)

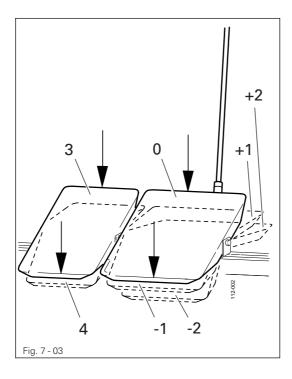


- As long as key 1 is pressed during sewing, the machine sews in reverse.
- Keys 2 and 3 can be allocated with corresponding parameter settings, see the Motor Instruction Manual.

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Controls

7.03 Pedal



0 = Resting position

+1 = Lower presser foot

+2 = Sew

 -1 = Lift presser-foot (on machines with automatic presser-foot lifter)

-2 = Trim thread (on machines with a thread trimmer)

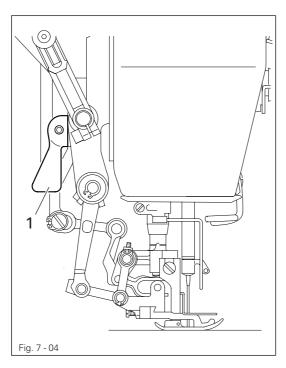
3 + (+2) = Requesting the second feed stroke value on machines without -918/14.

4 + (+2) = Reverse sewing



Further function-combinations can be found in the instruction manual of the motor manufacturer.

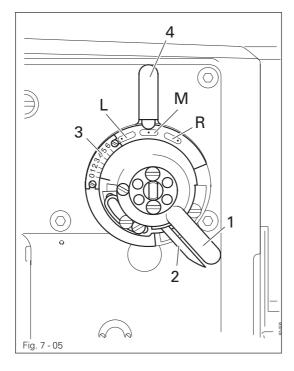
7.04 Lever for raising presser foot



 The presser foot is raised by turning lever 1.

7 - 2 **PFAFF**

7.05 Adjustment lever for zigzag stitch and needle position



- The zigzag stitch adjustment lever 1 is used for adjusting the width of the zigzag stitch.
- To change the position of the adjustment lever, the locking lever 2 must be pressed against the adjustment lever 1.



The current zigzag-stitch width can be seen on scale 3.

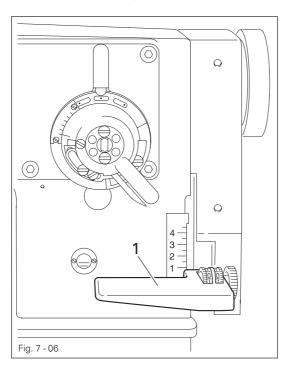
 By turning the needle-position adjustment lever 4 the required needle position can be set.

L = needle-position left

M = needle-position center

R = needle-position right

7.06 Reverse-feed key



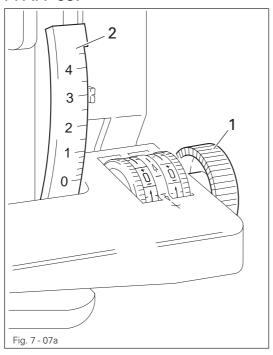
 The machine sews in reverse as long as the reverse-feed key 1 is pressed.

PFAFF 7 - 3

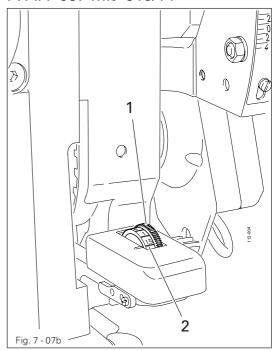
Controls

7.07 Stitch length adjustment wheel

PFAFF 937



PFAFF 937 mit -918/14

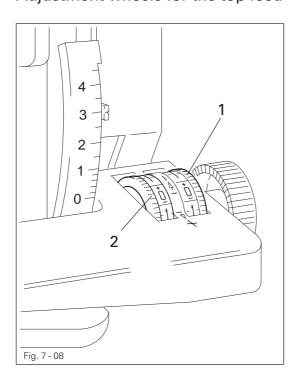


• Set the stitch length by turning the stitch length adjustment wheel 1.



The stitch length setting can be read on scale 2.

7.08 Adjustment wheels for the top feed



Adjustment wheel 1 (1st setting)
 This adjustment wheel is for adjusting the setting with which the machine is to do most of its work.

Green area = Apply fullness
Red area = Stretch
Zero = Normal sewing
(top and bottom

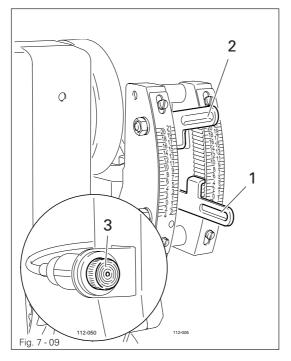
feeds work with same feed motion)

Adjustment wheel 2 (2nd setting)
 This adjustment wheel is for setting a value which is different from the first setting and which can be called up using the second treadle.

 (see chapter 7.03 Pedal)

7 - 4 **PFAFF**

7.09 Adjustment lever for the differential feed (only on the subclass -918/14)

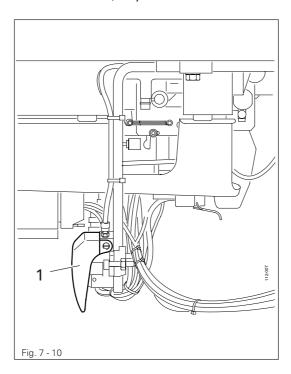


- Lever 1 (standard value)
 Lever 1 is set at the value, with which the machine usually operates.
- Lever 2 (fullness)
 Lever 2 can be set at a value, which deviates from the first setting. This value can be called up with the knee switch, see Chapter 7.10 Knee switch...



If the machine is set at the standard setting, display unit 3 on the machine head is green.

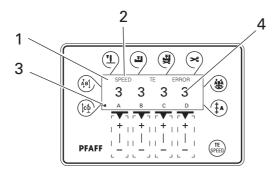
7.10 Knee switch (only on the subclass -918/14)



 By pressing knee switch 1 it is possible to switch between the two settings of the differential feed.

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7.11 Control panel (only on machines with Quick-Eco-Drive motor).



The control panel consists of display 1 and the function keys described below. The display 1 consists of a single-line alpha-numerical, 7 segment LCD display with 8 symbols. The texts 2, located above and next to the LCD display, show the respective status of the function keys and the operating status of the machine. The control panels switches on all LCD-segments and the horn automatically for a short time during the power-on phase, after which the lettering PFAFF appears on the display, until the higher-ranking control unit sends commands to the control panel.

The function keys are located around the display 1. They are foil-packed without permanent marking and without contact signal. Fixed functions are allocated to the keys, see **Chapter 7.11.02 Function keys**.

7.11.01 Screen displays

- Activated functions are displayed with a triangular marking 3 below or next to the respective function key.
- In the sewing mode all relevant sewing data is displayed and can be changed directly, depending on the status of the machine, see also Chapter 10 Sewing.
- During the parameter input the selected parameter number with the corresponding value is displayed, see Chapter 10.04.02 Example of a parameter input.

7.11.02 Function keys

The function keys described below are used basically to switch machine functions on and off.

Each time a key is pressed, this must be confirmed by at least one beep tone. Irrespective of the machine mode a double beep signal is given if invalid keys are pressed or maximum values reached.



If a corresponding value has to be set for the activated function, this is carried out with the corresponding +/- key. By pressing and holding the corresponding +/- key, the relevant numerical value 4 is changed slowly to begin with. If the corresponding +/- key is held down longer, the values change more quickly.

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Start backtacks

• If this key is pressed, the backtacks at the beginning of the seam (start backtacks) are switched on or off. The number of forward stitches (A) or reverse stitches (B) for the start backtacks can be changed by pressing the +/- key underneath. To convert from double backtack to single backtack set the number of stitches for the corresponding seam section at zero.



End backtacks

• If this key is pressed, the backtacks at the end of the seam (end backtacks) are switched on or off. The number of reverse stitches (C) or forward stitches (D) can be changed by pressing the +/- key underneath. To convert from double backtack to single backtack set the number of stitches for the corresponding seam section at zero.



Needle position

• If this key is pressed the "needle raised after sewing stop" function is switched on or off. When the function is switched on, the needle positions at t.d.c. after sewing stops.



Foot position after stop

If this key is pressed the "foot raised after sewing stop" function is switched on or off.
 When the function is switched on, the presser foot is raised after sewing stops.



Foot position after trimming

If this key is pressed the "foot raised after thread trimming" function is switched on or off.
 When the function is switched on, the presser foot is raised after thread trimming.



Thread trimmer

If this key is pressed the thread trimming function is switched on or off.



Darning program

• If this key is pressed the darning program function is switched on or off. The counted seam function is switched off automatically.



Counted seam

 If this key is pressed the counted seam function is switched on or off. The darning program function is switched off automatically.



TE/Speed

- If this key is pressed once the speed limit for the sewing mode is activated.
- If this key is pressed twice (within 5 seconds) the machine changes from sewing to input mode.

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8 Mounting and commissioning the machine



The machine must only be mounted and commissioned by qualified personnel! All relevant safety regulations are to be observed!



If the machine is delivered without a table, be sure that the frame and the table top which you intend to use can hold the weight of the machine and the motor. It must be ensured that the supporting structure is sufficiently sturdy, even during sewing operations.

8.01 Installation

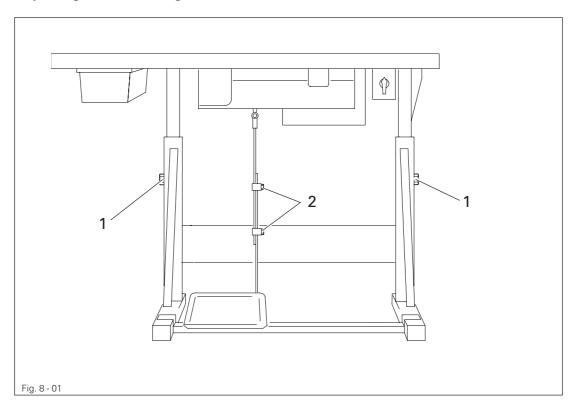
The site where the machine is installed must be provided with suitable connections for the electric current, see **Chapter 3 Specifications**.

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



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

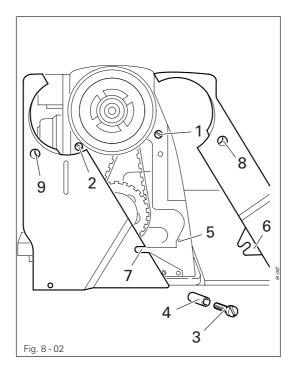
8.01.01 Adjusting the table height



- 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.

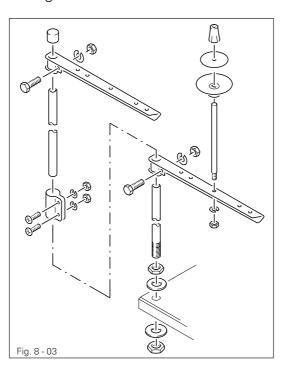
8 - 1 **PFAFF**

8.01.02 Fitting the top belt guard



- Slide the left and right halves of the Vbelt guard into place with the slots behind the heads of screws 1 and 2.
- Screw screw 3 with distance bush 4 into threaded hole 5.
- Align the V-belt guard, taking care that clip 6 is behind slot 7 and in front of distance bush 4.
- Tighten screws 1 and 2 (through holes 8 and 9) and screw 3.
- When using an external motor, the motor cover must also be fitted as described by the motor manufacturer.

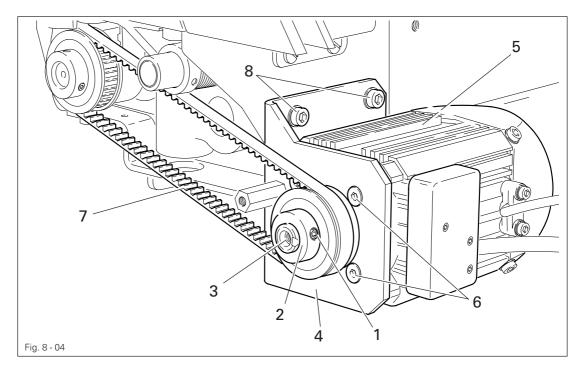
8.01.03 Fitting the reel stand



- Fit the reel stand as shown in Fig. 8-03.
- Afterwards insert the stand in the hole in the table top and secure it with the nuts provided.

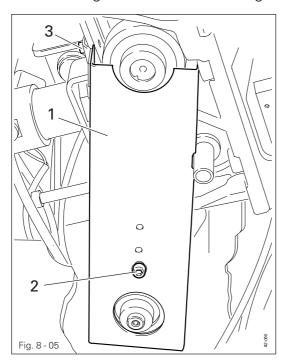
PFAFF 8 - 2

8.02 Fitting the Quick-flange motor



- Loosen screws 1 and remove toothed belt wheel 2 from the motor shaft 3.
- Attach bearing plate 4 to the motor 5 with screws 6 as shown in Fig. 8-04.
- Slide toothed belt wheel 2 onto the motor shaft 3 and fasten with screws 1.
- Slightly tilt bearing plate 4 with motor 5 to the side and place the toothed belt 7 on the toothed belt wheels.
- Align bearing plate 4 of motor 5 on the machine case and attach it with screws 8.

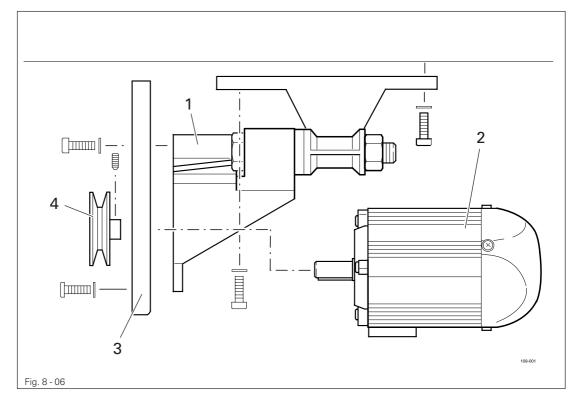
8.02.01 Fit the belt guard of the Quick flange-motor.



• Attach belt guard 1 with screws 2 and 3.

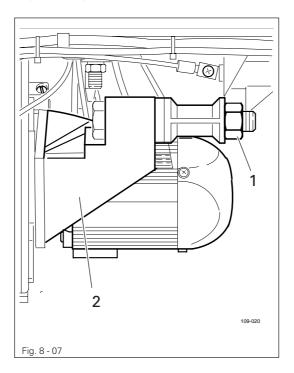
8 - 3 **PFAFF**

8.03 Installing the Quick underfloor motor



 Assemble motor mounting 1, motor 2, belt guard support 3 and belt pulley 4 as shown in Fig. 8-06.

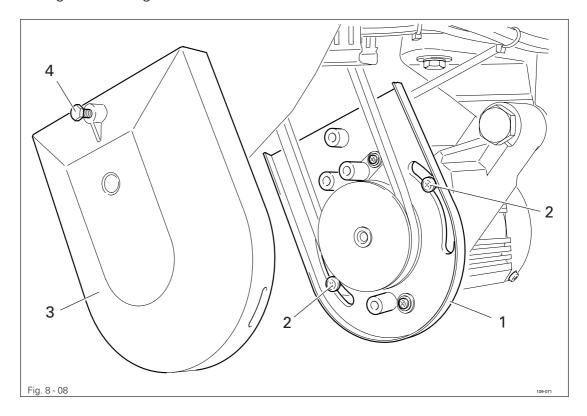
8.03.01 Tightening the V-belt of the Quick underfloor motor



- Fit the V-belt.
- Loosen nut 1 and tighten the V-belt by turning motor mounting 2.
- Tighten nut 1.

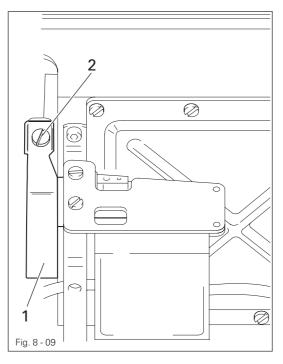
PFAFF 8 - 4

8.03.02 Fitting the V-belt guard of the Quick underfloor motor



- Loosen screws 2 and adjust belt guard support 1 so that the motor pulley and V-belt run freely.
- Tighten screws 2.
- Fasten belt guard 3 with screw 4.

8.04 Fitting the tilt lock



Screw on tilt lock 1, provided in the accessories, using screw 2.

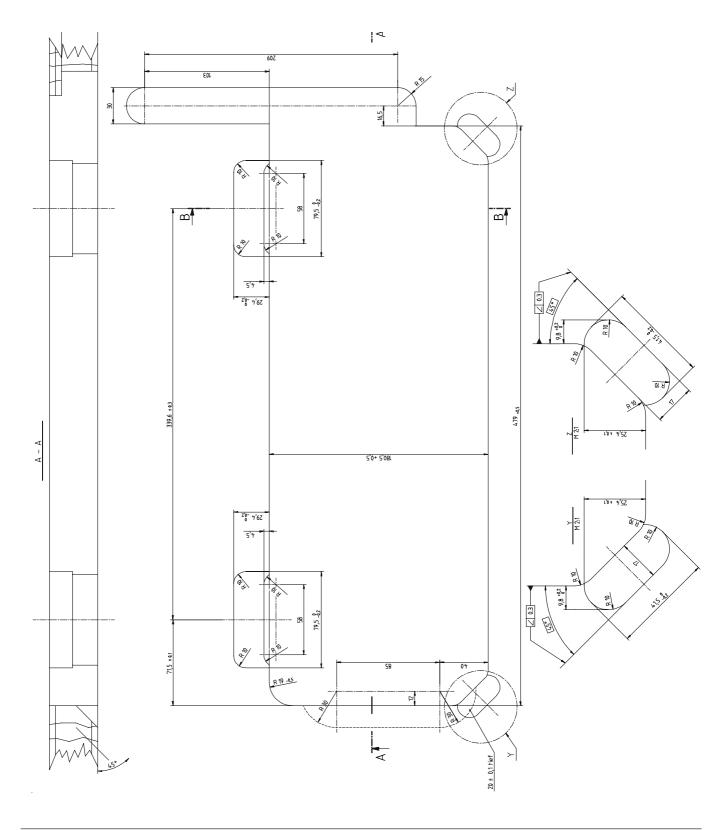


Do not operate the machine without tilt lock 1!

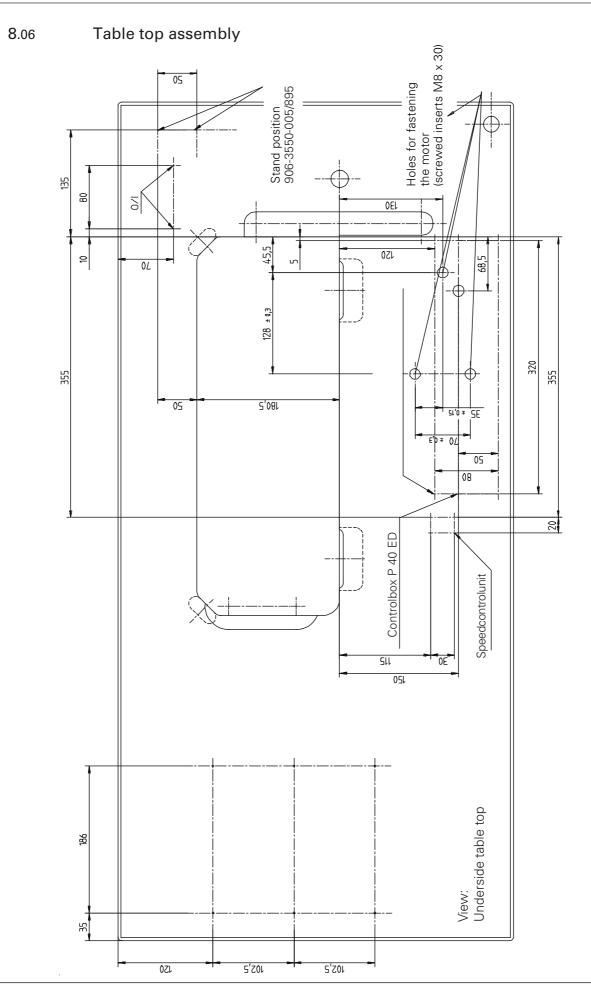
Danger of crushing between sewing head and table top!

8 - 5 **PFAFF**

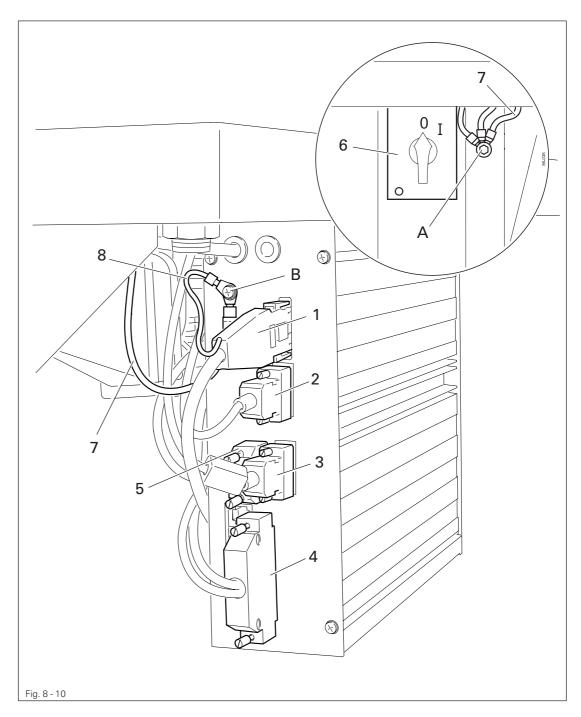
8.05 Table top cutout



PFAFF



8.07 Connect the plug-type connections and earth cable of the Quick-flange motor.

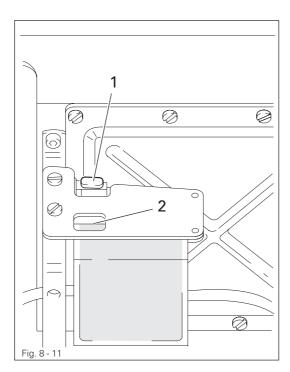


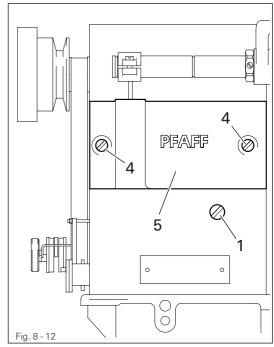
- Connect all plugs as labelled to the control box.
- Screw the earth cable from the sewing head and the main switch 1 to earth point A.
- Connect earth point A to earth point B with earth cable 2.
- Screw the earth cable 3 from the motor to earth point B.

PFAFF 8 - 8

8.08 Commissioning

- Examine the machine, in particular the electric cables and pneumatic connection tubes for any damage.
- Clean the machine thoroughly and then oil it.
- Have qualified personnel check whether the machine can be operated with the available voltage and whether it is connected properly in the terminal box. If there are any irregularities do not operate the machine under any circumstances.
- When the machine is running, the balance wheel must turn towards the operator, see
 Chapter 8.10 Basic setting of the machine drive unit.
- Connect the machine to the compressed air system. The pressure gauge should show a
 pressure of 6 bar. If necessary, adjust the value, see Chapter 11.05 Checking/adjusting
 the air pressure.





 Before commissioning the machine remove plug 1 from its hole and fill in oil up to marking 2, see Chapter 11.02 Oiling the hook.



Plug 1 serves as a safety device for transportation and should not be used during sewing operations.

 Before commissioning the machine remove screw 3 and fill in oil up to the marking (inspection glass on the front side of the machine), see Chapter 11.03 Oiling the zigzag drive.

8.09 Switching the machine on/off

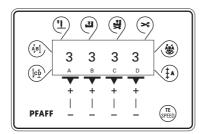
- Switch the machine on, see Chapter 7.01 Main switch.
- Carry out a test run.

8 - 9 **PFAFF**

8.10 Basic setting of the machine drive unit (only on machines with

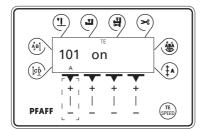
Quick-Eco-Drive-motor)

Switch on the machine.



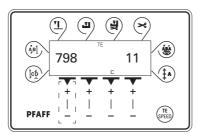
2 x (TE)

Press TE/Speed key twice to call up the input mode.



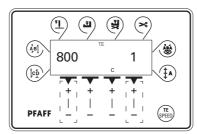
| + | | - | | - |

By pressing the corresponding +/- key, call up parameter "798" and select service level "C", see Chapter 10.04.01 Selecting the user level





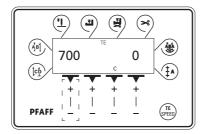
- By pressing the corresponding +/- key, call up parameter "800" (rotation direction of the motor)
- By pressing the corresponding +/- key enter the value "1".



| **+** | | **-** |

• By pressing the corresponding +/- key select parameter "700".

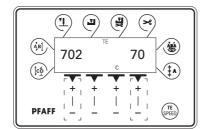
PFAFF 8 - 10



- Sew one stitch by operating the pedal.
- Turn the balance wheel in the direction of sewing until the tip of the needle is level with the top edge of the needle plate.



By pressing the corresponding +/- key, select parameter "702".

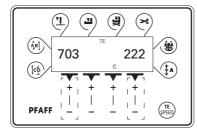


| + |

• By pressing the corresponding +/- key, enter the value "70".



• By pressing the corresponding +/- key, select parameter "703".





By pressing the corresponding +/- key, enter the value "222".



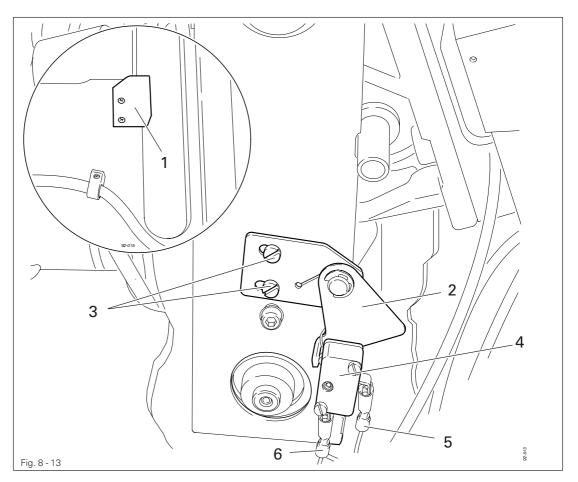
• Conclude the adjustment of the sewing motor by pressing the TE/Speed key.



The adjustment described above only applies to machines with Eco-Drive! When using another type of motor, please observe the motor instruction manual of the manufacturer.

8 - 11 **PFAFF**

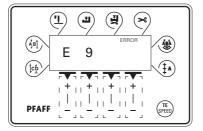
8.11 Mounting/connecting the start inhibitor (only on machines with Quick-flange motor)



- For machines delivered without a table, the plate 1 from the accessories should be mounted under the table top, so that the switch lug 2 is resting on plate 1 when the sewing head is in an upright position.
- Loosen screws 3 and adjust switch 4 so that the switch lug 2 is free when the sewing head is tilted back and pressed when the sewing head is upright.
- Connect plugs 5 and 6 to the switch 4.

PFAFF 8 - 12

8.12 Function check of the start inhibitor (only on machines with Quick-flange motor)



- Switch the machine on at the main switch and tilt it back.
 The error message "E9" must appear on the control panel.
- If the message does not appear, check the setting of switch 4.



Set the sewing head upright and acknowledge the error message by pressing the TE/
 Speed key. The machine is ready for operation again.

8 - 13 **PFAFF**

9 Setting up

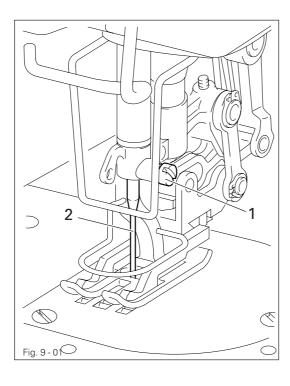


All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



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!

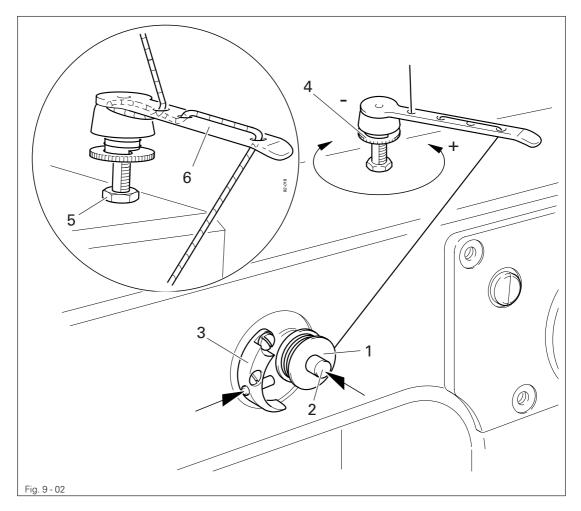


Only use needles from the system intended for the machine, see Chapter 3 Specifications.

- Bring the needle bar into its highest position.
- Loosen screw 1.
- Insert the needle 2 as far as possible.
- The long needle groove must be facing forwards.
- Tighten screw 1.

PFAFF 9 - 1

9.02 Winding the bobbin thread; adjusting the primary thread tension



- Place an empty bobbin 1 onto bobbin winder spindle 2.
- Thread the bobbin as shown in Fig. 9 02 and wind it clockwise around bobbin 1 a few times.
- Switch on the bobbin winder while at the same time pressing bobbin winder spindle 2 and lever 3.



The bobbin is filled up during sewing.

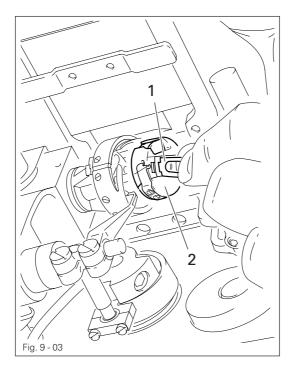
- The thread tension on bobbin 1 can be adjusted using knurled screw 4.
- The bobbin winder stops automatically when bobbin 1 is full.

If the thread is wound unevenly:

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

9 - 2 **PFAFF**

9.03 Removing/inserting the bobbin case





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

Removing the bobbin case.

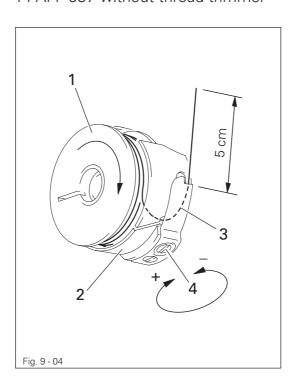
• Lift clip 1 and remove bobbin case 2.

Inserting the bobbin case:

 Insert bobbin case 1 until you feel it click into place.

9.04 Threading the bobbin case, adjusting the thread tension

9.04.01 PFAFF 937 without thread trimmer



- Insert bobbin 1 into bobbin case 2.
- Guide the thread through the slot under spring 3.
- Adjust the thread tension by turning screw 4.

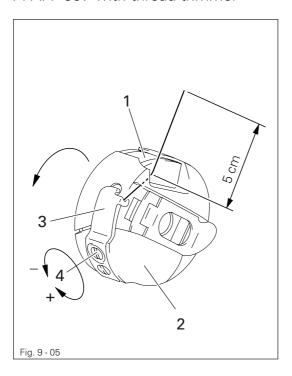


When the thread is pulled the bobbin 1 must rotate in the direction of the arrow.

PFAFF 9 - 3

Setting up

9.04.02 PFAFF 937 with thread trimmer



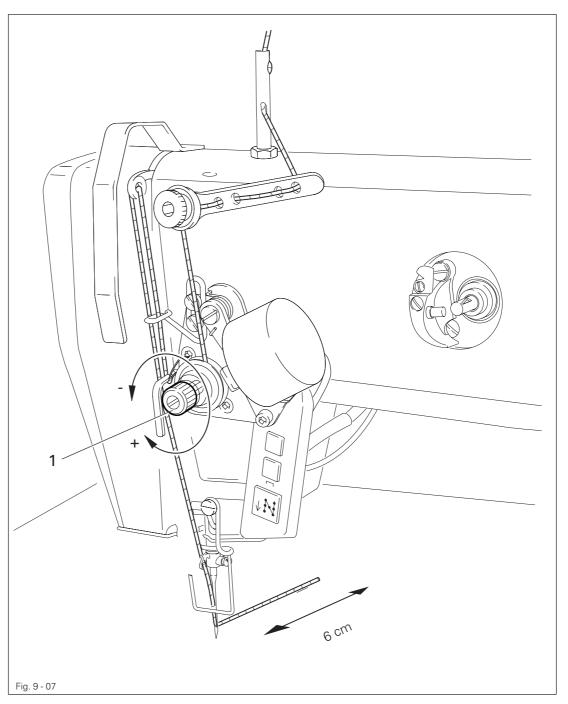
- Insert bobbin 1 into bobbin case 2.
- Guide the thread through the slot under spring 3.
- Adjust the thread tension by turning screw 4.



When the thread is pulled the bobbin 1 must rotate in the direction of the arrow.

9 - 4 **PFAFF**

9.05 Threading the needle thread / Adjusting the needle thread tension





Switch off the machine!

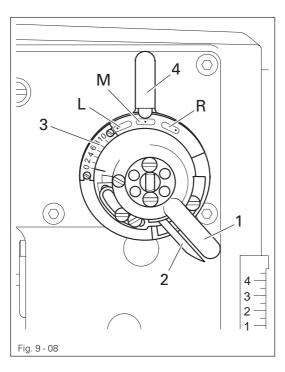
Danger of injury if the machine is started accidentally!

- Thread the needle thread as show in the above illustration.
- Adjust the needle thread tension by turning milled screw 1.

PFAFF 9 - 5

Setting up

9.06 Setting the zigzag stitch and the stitch position



- Set the zigzag stitch width by turning the zigzag lever 1.
- To vary the adjustment press catch 2 against zigzag lever 1.
- The setting can be read from scale 3.
- Set the stitch position by turning stitch position lever 4.

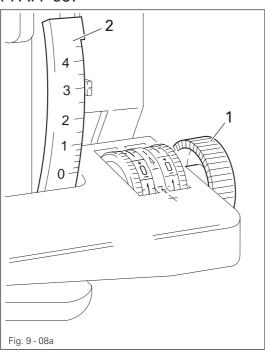
L = stitch position on left

M = stitch position in the middle

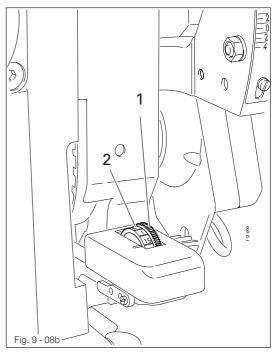
R = stitch position on the right

9.07 Adjusting the stitch length

PFAFF 937



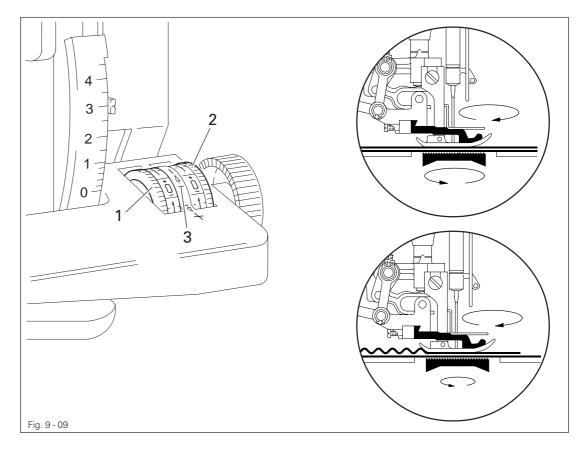
PFAFF 937 with subclass -918/14



Adjust the stitch length by turning the feed regulator wheel 1.
 The setting can be read on scale 2.

9 - 6 **PFAFF**

9.08 Adjusting the top feed on machines without -918/14



9.08.01 Sewing without fullness

- Turn adjustment wheel 1 as far as possible in the "+" direction.
- Turn adjustment wheel 2 until " 0 " is at marking 3.
- Turn adjustment wheel 1 back until " 0 " is at marking 3.
- Adjust the stitch length (see chapter 9.07 Adjusting the stitch length).



When sewing without fullness application, the feed stroke of the top and bottom feed dog is the same.

9.08.02 Applying fullness constantly

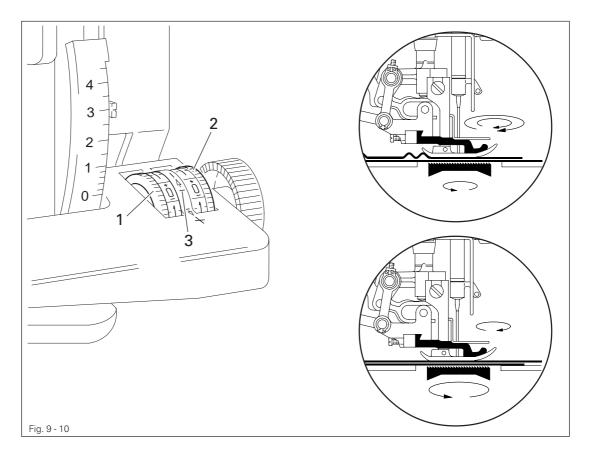
- Turn adjustment wheel 1 as far as possible in the "+" direction.
- Turn adjustment wheel 2 until the desired level of fullness (green numbers) is at marking 3.
- Turn adjustment wheel 1 back until the same green number is at marking 3.
- Adjust the stitch length (see chapter 9.07 Adjusting the stitch length).



The sum of the selected fullness level and the stitch length must not exceed **4.5** because more than this lessens the stitch length.

PFAFF 9 - 7

Setting up



9.08.03 Applying fullness intermittently

- Turn adjustment wheel 1 to "+" as far as it will go.
- Turn adjustment wheel 2 until "0" is at marking 3.
- Turn adjustment wheel 1 back until the desired level of fullness (green numbers) is at marking 3.
- Adjust the stitch length (see chapter 9.07 Adjusting the stitch length).



The sum of the selected fullness level and the stitch length must not exceed 4.5 because more than this lessens the stitch length.



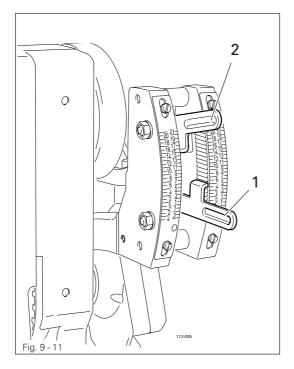
When the left pedal is in resting position the machine sews with equal bottom and top feed strokes. By activating the left pedal the level of fullness set on adjustment wheel 1 is sewn into the top fabric layer (see chapter 7.03 Pedal).

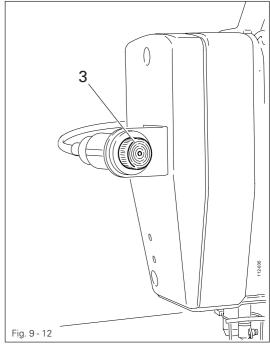
9.08.04 Constant stretching of the lower material ply

- Turn adjustment wheel 1 as far as possible in the "+" direction.
- Turn adjustment wheel 2 until the desired level of stretch (red numbers) is at marking 3.
- Turn adjustment wheel 1 back until the same red number is at marking 3.
- Adjust the stitch length (see chapter 9.07 Adjusting the stitch length).

9 - 8 **PFAFF**

9.09 Adjusting the top feed on machines with -918/14





Standard value:

• Set the value with which the machine will usually operate on lever 1.

Fullness:

• Set the required deviating value (e.g. for fullness) on lever 2.



By pressing the knee switch, it is possible to switch between the standard value and fullness, see Chapter 7.10 Knee switch.

Setting displayed on display unit 3:

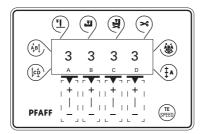
Display white = fullness

Display green = standard value

PFAFF 9 - 9

9.10 Entering the start and end backtacks

Switch on the machine.



- If necessary switch off the "darning seam" or "counted seam" function, see Chapter 10.01
 Darning program or Chapter 10.02 Counted seam.
- By pressing the corresponding +/- key ("A") select the desired value for the number of forward stitches (A) of the start backtack.
- By pressing the corresponding +/- key ("B") select the desired value for the number of reverse stitches (B) of the start backtack.
- By pressing the corresponding +/- key ("C") select the desired value for the number of reverse stitches (C) of the end backtack.
- By pressing the corresponding +/- key ("D") select the desired value for the number of forward stitches (D) of the end backtack.





 By pressing the keys start backtack and/or end backtack, activate the corresponding function (arrow appears next to the corresponding function key).

9 - 10 **PFAFF**

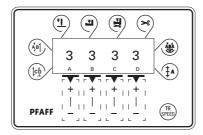
10 Sewing (only on machines with Quick-flange motor)

In the sewing mode all relevant settings for the sewing operation are displayed. Functions can be switched on or off by pressing a key. Values for start and end backtacks or stitch placement can be changed directly.



When the machine is switched on, the sewing mode is always activated.

Switch on the machine.



If necessary switch off the function "darning seam" or "counted seam", see Chapter 10.01
 Darning program or Chapter 10.02 Counted seam.

Functions in manual sewing, also see Chapter 7.10.02 Function keys:



Start backtacks on/off



Presser foot raised at end of seam on/off



End backtacks on/off



Thread trimming on/off



Needle position raised on/off



Darning program on/off



Presser foot raised on/off



Counted seam on/off

Sewing is carried out with the pedal functions, see Chapter 7.03 Pedal..

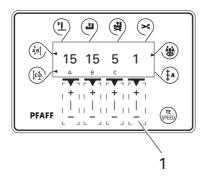


The "Darning program" and "Counted seam" functions are explained in more detail in Chapter 10.01 Darning program or Chapter 10.02 Counted seam.

PFAFF 10 - 1

Sewing

10.01 Darning program



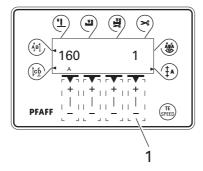




The corresponding function can be switched on or off directly with the **Darning program** key. The "counted seam" function is switched off automatically. Several darning programs with different seam sections A and/or B can be selected. The number of required darning programs can be selected by operating the +/- key 1. The number of stitches for the individual seam sections A and/or B can be selected by operating the **corresponding** +/- key. By operating the **corresponding** +/- key it is possible to select a repeating factor "C" for the selected darning program.

If the backtack functions are also activated, only the status backtack on or backtack off is displayed. The individual backtack parameters can be altered after the "darning program" function has been switched off, see Chapter 9.10 Entering start and end backtacks.

10.02 Counted seam







The corresponding function can be switched on or off directly with the **Counted seam** key. The "darning program" function is switched off automatically. Several counted seam sections can be selected. The number of required seam sections can be selected by operating the +/- key 1. The required number of stitches "A" of the selected seam section can be selected by operating the **corresponding** +/- key.

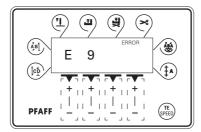
If the backtack functions are also activated, only the status backtack on or backtack off is displayed. The individual backtack parameters can be altered after the "counted seam" function has been switched off, see Chapter 9.10 Entering start and end backtacks.

10 - 2 **PFAFF**

10.03 Error messages

If a fault occurs, the text "ERROR" appears on the display, together with an error code and short instructions. An error message is caused by incorrect settings, faulty elements or seam programs as well as by overload conditions.

For an explanation of the error codes see Chapter 10.04.04 Explanation of the error messages.



• Correct the error.



Acknowledge error correction by pressing the TE/Speed key.

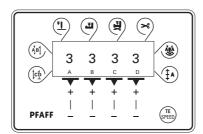
PFAFF 10 - 3

Sewing

10.04 Parameter settings

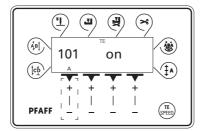
10.04.01 Selecting the user level

Switch on the machine.



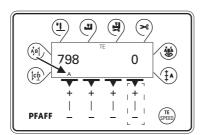


Press the TE/Speed key twice to call up the input mode.





• By pressing the corresponding +/- key select the parameter group "798".



• By pressing the corresponding +/- key select the desired user level:

"0" = operator level A
"1" = technician level B
"11" = service level C

The selected user level is displayed on the screen. (see arrow)

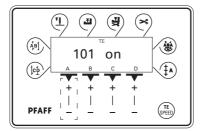
10 - 4 **PFAFF**

10.04.02 Example of a parameter input

Switch on the machine.

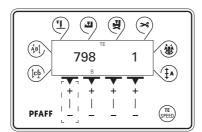


Press the TE/Speed key twice to select the input mode.



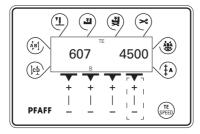


By pressing the corresponding plus/minus key select parameter "798" and the user level "B", see Chapter 10.04.01 Selecting the user level.





• Select parameter "607" by pressing the corresponding +/- key.



• Select the required value for the maximum speed by pressing the corresponding +/- key.



By pressing the TE/Speed key the selected value is taken over and the machine switches to the sewing mode.

PFAFF 10 - 5

Sewing

10.04.03 List of parameters



Only appropriately trained technical staff may change the set values of parameters 105 to 800!

Group	Parameter	Description	User level	Setting range	Set value
1	101	Control panel key tone (OFF / ON)	A, B, C	ON - OFF	ON
	105	Backtack speed at beginning of seam	В, С	300 - 2000	1200
	110	Backtack speed at end of seam	В, С	300 - 2000	1200
6	605	Speed display (OFF / ON)	В, С	ON - OFF	OFF
	606	Min. speed (level 1)	В, С	30 - 300	180
	607	Min. speed (level 12)	В, С	300 - 6000	4500
	609	Cutting speed	В, С	60 - 300	180
	660	Bobbin thread control 0 = off 1 = thread monitor 2 = reverse counter	А, В, С	0 - 2	0
7	700	Needle position 0 Needle at penetration point, left ((needle reference position)	В, С	0 - 255	0
	702	Needle position 1 (needle lowered)	В, С	0 - 255	70
	703	Needle position 2 (take-up lever raised)	В, С	0 - 255	222
	705	Needle position 5 (end of cutting signal 1)	В, С	0 - 255	196
	706	Needle position 6 (start of cutting signal 2)	В, С	0 - 255	136
	707	Needle position 9 (start thread tension release)	В, С	0 - 255	150
	797	Hardware test (OFF / ON)	В, С	ON - OFF	OFF
	798	User level 0 = User level "A" 1 = Mechanic level "B" 11 = Service level "C"	А, В, С	0, 1, 11	0
	799	Machine class 1 = 937	С	1 - 4	1
8	800	Rotating direction of the motor 1 = 937	С	0 - 1	1



Further parameters are listed in the Motor Instruction Manual.

10 - 6 **PFAFF**

10.04.04 Explanation of the error signals

Signal	Description
E001	Pedal not in neutral position
E009	Start inhibitor during standstill
E010	Incorrect machine class
E062	Short circuit 24V
E063	Overload mains supply circuit
E064	Network monitoring
E065	Extint low in operation
E066	Short circuit
E067	Network off
E068	Extint low in operation
E069	No increments
E070	Motor blocking
E071	No incremental connector
E074	External transmitter for synchronisation marker missing
E088	RAM defective
E092	Start inhibitor when motor running
E173	Start error
E175	Start error

PFAFF 10 - 7

Care and maintenance

11 Care and maintenance

Cleaning	daily, several times by continuous operation
	,
Checking the oil level (hook oil tank)	•
Checking the oil tank(zigzag eccentric lubricat	ion) daily, before operation
Checking/adjusting the air pressure	daily, before each operation
Cleaning the air filter/lubricator	



▲ This maintenance interval if for an average machine running time in a single shift operation. If the machine running times are longer, shorter maintenance intervals are recommended.

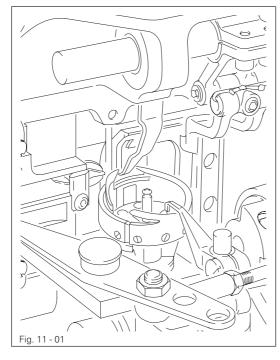
11.01 Cleaning



Switch off the machine!

Danger of injury if the machine is started accidentally!





- Tilt back the machine head.
- Clean the hook and the hook compartment daily, more often if in continuous operation.



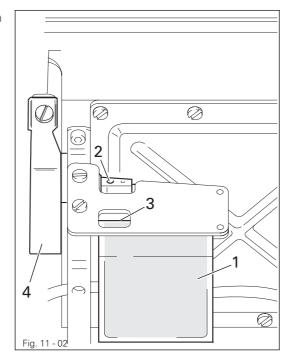
Use both hands to set the machine upright!

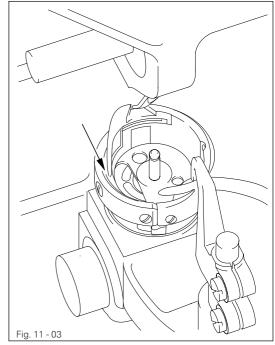
Danger of crushing between sewing head and table top!

11 - 1 **PFAFF**

11.02 Lubricating the hook









Turn the machine off!

Danger of injury if the machine is started accidentally!



Only use oil with a mean viscosity of 10.0 mm²/s at 40°C and a density of 0.847 g/cm³ at 15°C.

- Lay the machine head on its back.
- Fill the oil reservoir 1 up to the upper marking 3 through hole 2.
- Before operating the machine for the first time or after longer stationary periods, add a few additional drops of oil into the hook race (see arrow in Fig. 11-03).
- To set the sewing head upright, press tilt lock 4 backwards and set the sewing head upright using both hands.



Return the machine to its upright position with both hands. Danger of crushing between machine head and table top!



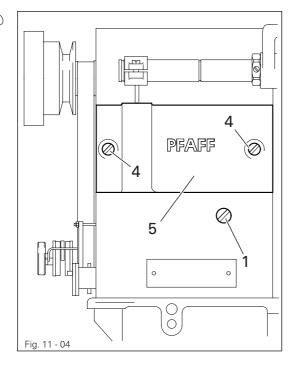
We recommend PFAFF sewing machine oil. Part no. 280-1-120 105.

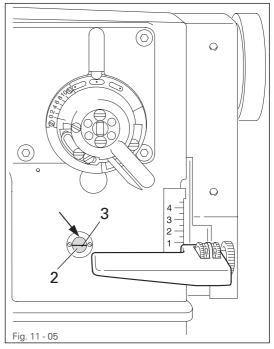
PFAFF 11 - 2

Care and maintenance

11.03 Oiling the zigzag drive









Switch off the machine!

Danger of injury if the machine is started accidentally!



Only use oil with a mean viscosity of $68.00~\text{m}^2/\text{s}$ at 40° C and a density of $0.881~\text{g/cm}^3$ at 15° C.

- Check the oil level before each operation.
- When necessary, remove screw 1 and pour in oil until sight glass 2 is full.
- Tighten screw 1.



Never allow the oil level to sink below the minimum mark 3! Danger of damage to the machine!



To fill in larger quantities of oil, e.g. when filling for the first time before commissioning, it is better to remove cover 5.

- Loosen screws 4 and remove cover 5.
- Take care that no dirt gets into the case.
- Pour in oil until sight glass 2 is full.
- Clean the surface of cover 5, the case and the seal.
- Replace cover 5 and tighten screws 4.

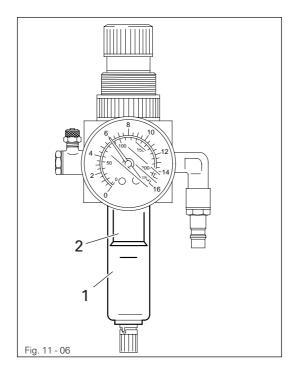


We recommend PFAFF sewing machine oil, part no. 280-1-120 146.

11 - 3 **PFAFF**

Care and maintenance

11.04 Cleaning the air filter of the air-filter / lubricator





Switch the machine off!
Disconnect the air hose at the air-filter / lubricator.

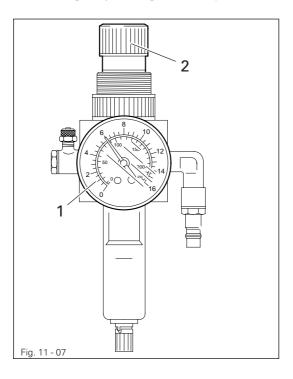
To drain water bowl 1:

 Water bowl 1 drains itself automatically when the compressed-air hose is disconnected from the air-filter / lubricator.

Cleaning filter 2:

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

11.05 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.

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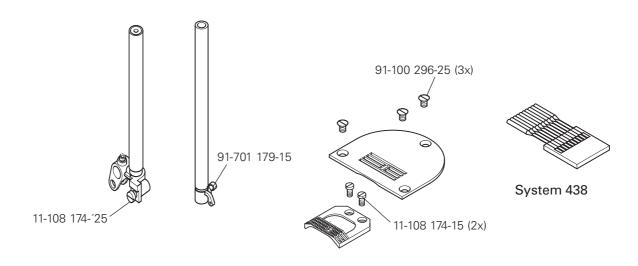
Wearing parts

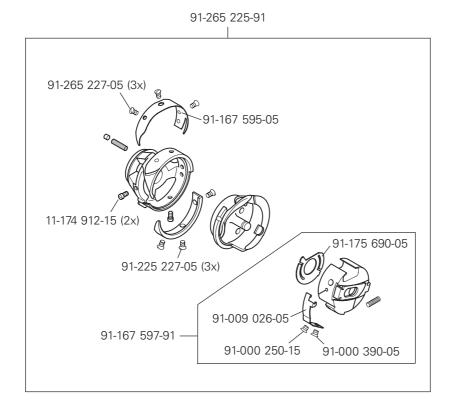
14 Wearing parts



This list indicates the most important wearing parts.

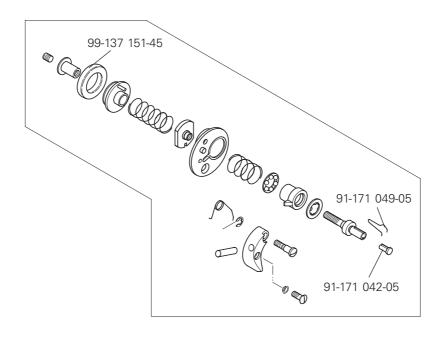
You can request a detailed parts list for the complete machine under parts number 296-12-18 586.

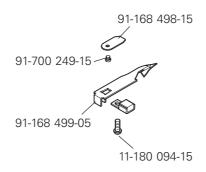






12 - 1 **PFAFF**





PFAFF 12 - 2



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