# **PFAFF**

11811183

Instruction Manual

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

PFAFF # 901-1181 310-000 → -999 PFAFF # 901-1181 311-000 → -999



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

The reprinting, copying or translation of PFAFF Instruction Manuals, whether in whole or in part, is only permitted with our previous authorization and with written reference to the source.

#### PFAFF Industrie Maschinen AG

Postfach 3020

D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

# Contents

	Contents	apter -	Pa	ige	ļ
1	Safety		1	- 1	
1.01	Directives		1	- 1	
1.02	General notes on safety		1	- 1	
1.03	Safety symbols		1	- 2	,
1.04	Important points for the user		1	- 2	,
1.05	Operating and specialist personnel		1	- 3	,
1.05.01	Operating personnel		1	- 3	,
1.05.02	Specialist personnel		1	- 3	,
1.06	Danger		1	- 4	ŀ
2	Proper use		2	- 1	
3	Specifications		3	_ 1	
3.01	PFAFF 1181, PFAFF 1183				
3.02	Models and subclasses				
4	Disposal of the machine		4	- 1	
5	Transport, packaging and storage		5	- 1	
5.01	Transport to the customer		5	- 1	
5.02	Transport within the customer's premises		5	- 1	
5.03	Disposal of the packaging		5	- 1	
5.04	Storage		5	- 1	
6	Explanation of the symbols		6	- 1	
7	Controls		7	- 1	
7.01	On/off switch				
7.02	Keys on the machine head				
7.03	Pedal				
7.04	Lever for lifting the presser foot				
7.05	Feed regulator disk / Reverse feed lever				
7.06	Knee lever				
7.07	Thread trimmer –731/01				
7.08	Switch for thread wiper -909/04				
7.09	Control panel				
7.09.01	Screen displays				
7.09.02	Function keys				
8	Mounting and commissioning the machine		0	1	
<b>8</b> .01	Mounting and commissioning the machine				
8.01.01	Mounting				
8.01.01	Adjusting the Whelt tension				
	Adjusting the V-belt tension				
8.01.03	Mounting the upper V-belt guard				
8.01.04	Mounting the lower V-belt guard				
8.01.05 8.02	Mounting the spool holder			- 3 - 4	
O.UZ	Connecting the bilig-in connections and earth cables		ಗ	- 4	

# Contents

	Contents	Chapter -	Pa	зge
8.03	Start inhibitor		8	- 5
8.03.01	Mounting the start inhibitor			
8.03.02	Checking the start inhibitor function			
8.04	Basic setting of the machine drive unit			
8.05	Commissioning the machine			
8.06	Switching the machine on/off			
8.07	Table top cutout.			
8.08	Mounting the table top			
9	Preparation		. 9	- 1
9.01	Inserting the needle			
9.02	Winding the bobbin thread, adjusting the thread tension			
9.03	Removing/Inserting the bobbin case			
9.04	Inserting the bobbin case / Adjusting the bobbin thread tension			
9.05	Threading the needle thread / Adjusting the needle thread tension			
9.06	Entering the start and end backtacks			
10	Sewing		10	. 1
10.01	Darning program			
10.01	Counted seam			
10.02	Error messages			
. 0.00				Ü
11	Care and maintenance		11	- 1
11.01	Cleaning the machine		11	- 1
11.02	Topping up the oil tank		11	- 2
12	Adjustment		12	- 1
12.01	Notes on adjusting		12	- 1
12.02	Tools, gauges and other accessories for adjusting		12	- 1
12.03	Abbreviations		12	- 1
12.04	Checking and adjusting aids		12	- 2
12.05	Adjusting the basic machine		12	- 3
12.05.01	Basic position of the machine drive		12	- 3
12.05.02	Preadjusting the needle height		12	- 4
12.05.03	Bottom feed neutral position		12	- 5
12.05.04	Neutral position of the needle feed (only on PFAFF 1181)		12	- 6
12.05.05	Bottom feed lifting motion		12	- 7
12.05.06	Bottom feed dog height		12	- 8
12.05.07	Feed dog motion of bottom feed dog		12	- 9
12.05.08	Feeding motion of needle feed (only on PFAFF 1181)		12	- 10
12.05.09	Needle in needle hole center (only on PFAFF 1183)		12	- 11
12.05.10	Needle to needle hole centre (on PFAFF 1181)		12	- 12
12.05.11	Synchronous strokes of needle- and drop feed (only on PFAFF 1181)		12	- 13
12.05.12	Hook shaft bearing and toothed belt tension		12	- 14
12.05.13	Hook lubrication		12	- 15

# **Contents**

	Contents	Chapter - Page
12.05.14	Needle rise, hook-to-needle clearance, needle height and bobbin	
	case position finger	12 - 16
12.05.15	Thread check spring and slack thread regulator	12 - 17
12.05.16	Position of knee lever	12 - 18
12.05.17	Knee lever stop	12 - 19
12.05.18	Bobbin winder	12 - 20
12.05.19	Limiting the stitch length	12 - 21
12.05.20	Presser foot pressure	12 - 22
12.05.21	Modifying the needle bar stroke	12 - 23
12.06	Adjusting the edge trimmer –731/01	12 - 24
12.06.01	Zero position of the knife	12 - 24
12.06.02	Cutting motion	12 - 25
12.06.03	Knife height	12 - 26
12.06.04	Knife position in sewing direction	12 - 27
12.06.05	Knife position crosswise to sewing direction	12 - 28
12.07	Adjusting the thread trimmers -900/24	12 - 29
12.07.01	Magnet setting	12 - 29
12.07.02	Lateral alignment of the thread catcher	12 - 30
12.07.03	Knife position	12 - 31
12.07.04	Front point of reversal of the thread catcher	12 - 32
12.07.05	Manual trimming check	12 - 33
12.07.06	Needle thread tension release	12 - 34
12.07.07	Readjusting the control cam	12 - 35
12.08	Adjusting the thread wiper -909/04	12 - 36
12.08.01	Thread wiper movement	12 - 36
12.08.02	Thread wiper position	12 - 37
12.09	Adjusting the automatic presser foot lift -910/06	12 - 38
12.10	Adjusting the back-tacking mechanism –911/37	12 - 39
12.11	Parameter settings	12 - 40
12.11.01	Selecting the user level	12 - 40
12.11.02	Example of a parameter input	12 - 41
12.11.03	Liste der Parameter	12 - 42
12.11.04	Reset / Cold start	12 - 43
12.12	Internet update of the machine software	
12.13	Explanation of the error signals	
12	Wearing parts	12 1

### Safety

### 1 Safety

#### 1.01 Directives

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

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

### 1.02 General notes on safety

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

1 - 1 **PFAFF** 

### 1.03 Safety symbols



Danger!
Points to be observed.



Danger of injury for operating and specialist personnel!



#### Caution

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

### 1.04 Important points for the user

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

Further information can be obtained from your PFAFF agent.

**PFAFF** 1 - 2

### Safety

### 1.05 Operating and specialist personnel

#### 1.05.01 Operating personnel

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

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

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

#### 1.05.02 Specialist personnel

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

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

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

1 - 3 **PFAFF** 

### 1.06 Danger



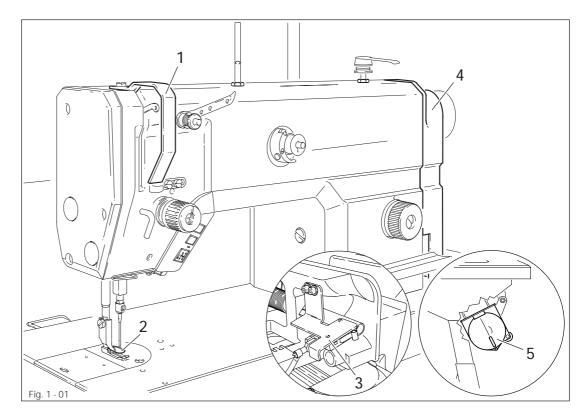
A working area of 1 meter is to be kept free both in front of and behind the machine while it is in operation so that it is always easily accessible.



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!





Do not operate the machine without its take-up lever guard 1! Danger of injury due to the motion of the take-up lever!



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



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



If an external motor is used, do not operate the machine without the belt guards 4 and 5!

Danger of injury by the drive belt!

**PFAFF** 1 - 4

### Proper use

### 2 Proper use

The PFAFF 1181 is an oil-free single-needle ultra-high-speed seamer with compound feed The PFAFF 1183 is an oil-free single-needle ultra-high-speed seamer with drop feed

These machines are used in the industry for sewing lockstitch seams.



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

2 - 1 **PFAFF** 

# 3 Specifications ▲

# 3.01 PFAFF 1181, PFAFF1183 ▲

Stitch type:  Needle system:	
Needle size in 1/100 mm:  Version A:  Version B:  Version C:	80 - 100
Effective balance wheel diameter: Fabric clearance: Clear workspace width: Clear workspace height:	
Bed-plate dimensions:	476 x 177 mm
Sewing head dimensions:  Length:  Width:  Height (above table):	approx. 180 mm
Max. stitch length:  Version A:  Version B:  Version CN:	4.5 mm
Max. speed PFAFF 1181/ 1183  Version A and B:  Subclass -731/01:  Subclass -948/51:  Subclass -8/44:  Version CN	
Needle bar stroke:	30 or 36 mm
Power connection: Operating voltage: Max. input: Fuse:	400 VA
Ambient noise levels: Workplace noise level at corresponding speeds (noise measurement according to DIN 45 635-48-A-PFAFF 1181 at 4400 spm:  PFAFF 1183 at 4400 spm:  Net weight of sewing head:	$L_{pA} < 80.0 \text{ dB(A)} = $ $L_{pA} < 80.5 \text{ dB(A)} = $
Gross weight of sewing head:	

- ▲ Subject to technical alterations
- ↑ 3,800 s.p.m. with 36 mm needle bar stroke
- $K_{pA} = 2.5 \text{ dB}$

# Specifications

### 3.02 Versions and subclasses

Version B:	for sewing light materials for sewing medium materials for sewing medium-heavy materials
version c	101 Sevving medium-neavy materials
Work aids:	
Subclass -731/01	edge trimmer
Subclass -900/24	thread trimmer
Subclass -909/04	thread wiper
Subclass -910/06	automatic foot lift
Subclass -911/37	automatic back-tacking mechanism

3 - 2 **PFAFF** 

# Disposal of machine

### 4 Disposal of machine

- The proper disposal of the machine is the responsibility of the customer.
- The materials used in the machines are steel, aluminium, brass and various plastics. The electrical equipment consists of plastics and copper.
- The machine is to be disposed of in accordance with the locally valid environmental protection regulations. If necessary, a specialist is to be commissioned.



Special care is to be taken that parts soiled with lubricants are separately disposed of in accordance with the locally valid pollution control regulations!

**PFAFF** 4 - 1

# Transport, packaging and storage

### 5 Transport, packaging and storage

### 5.01 Transport to the 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.

5 - 1 **PFAFF** 

### 6 Explanation of the symbols

In the following section of this Instruction Manual, certain tasks or important pieces of information are accentuated by symbols.

The symbols used have the following meanings:



Note, information



Cleaning, care



Lubrication, greasing



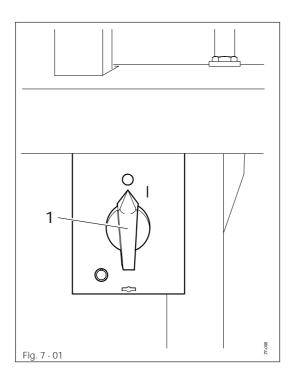
Servicing, repairing, adjustment, maintenance (only to be carried out by specialist personnel)

**PFAFF** 6 - 1

### **Controls**

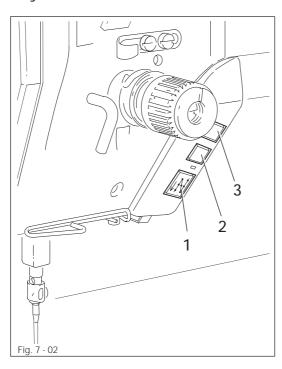
### 7 Controls

### 7.01 On/off switch



 Switch the machine on or off by turning main switch 1.

### 7.02 Keys on the machine head



• The following functions are triggered by pressing the respective key.

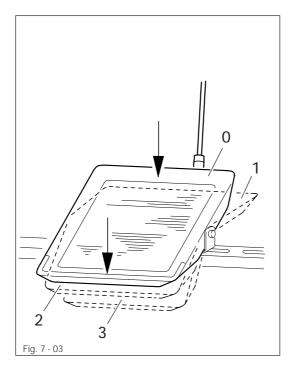
Key 1: reverse sewing

Key 2: prevention or release of the automatic start back tack or finish back tack.

Key 3: when sewing is interrupted, the needle can either be raised or lowered as required.

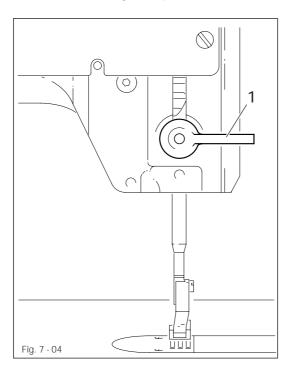
7 - 1 **PFAFF** 

#### 7.03 Pedal



- 0 = Machine stop
- 1 = Sew
- 2 = Raise presser foot (for machines with -910/06)
- 3 = Trim thread (for machines with -900/24)

# 7.04 Lever for lifting the presser foot

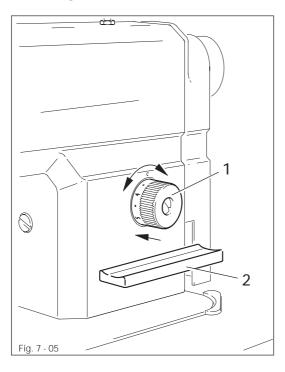


• The presser foot is raised by turning lever 1.

**PFAFF** 7 - 2

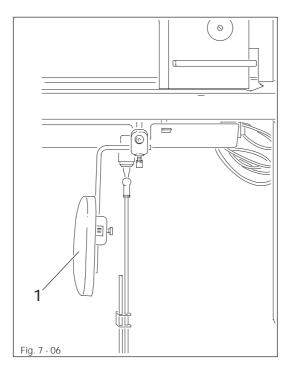
### **Controls**

### 7.05 Feed regulator disk / Reverse feed lever



- The stitch length can be set by simultaneously applying pressure to disk 1 and turning it to the desired setting.
- For reverse sewing press lever 2.

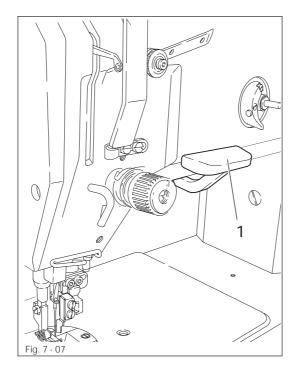
#### 7.06 Knee lever



 By pressing the knee lever 1 in the direction of the arrow, the presser foot is raised.

7 - 3 **PFAFF** 

### 7.07 Thread trimmer -731/01

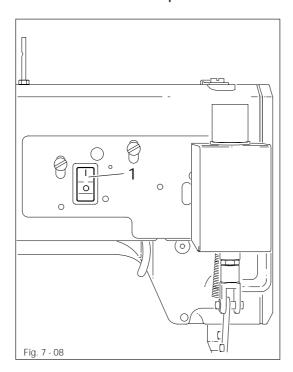




Do not touch the running motor! Danger of injury!

 By pressing or raising key 1, the edge trimmer is switched on or off.

### 7.08 Switch for thread wiper -909/04



 By moving switch 1, the thread wiper can be switched on or off.

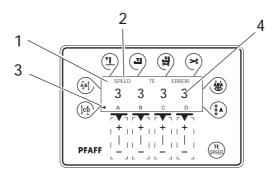
Position I : aggregate is on

Position 0 : aggregate is off

**PFAFF** 7 - 4

### **Controls**

#### 7.09 Control panel



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 7.09.02 Function keys.

#### 7.09.01 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 12.11.02 Example of a parameter input.

#### 7.09.02 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.

7 - 5 **PFAFF** 



#### 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.

**PFAFF** 7 - 6

### 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.

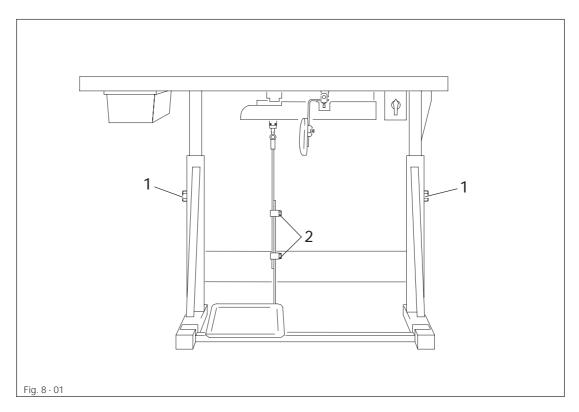
#### 8.01 Mounting

The necessary electricity supply must be available at the machine's location. Also, a stable and horizontal surface as well as adequate lighting are required at the location.



Depending on the type of table, the method of packaging used may require that the table top be lowered for transport. The following is a description of how to adjust the height of the table top.

### 8.01.01 Adjusting the table-top height



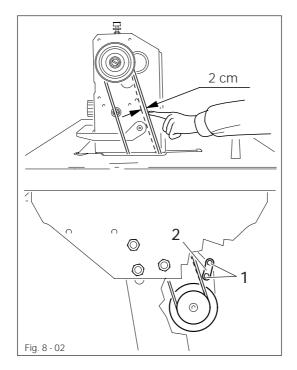
- Loosen screws 1 and 2 and set the desired table-top height
- Tighten screws 1 well.
- Adjust the pedal to the desired position and tighten screw 2.

8 - 1 **PFAFF** 

### 8.01.02 Adjusting the V-belt tension



This step is eliminated for integrated sewing motors.



- Loosen nuts 1.
- Tighten the V-belt with belt take-up hanger 2.
- Tighten nuts 1.

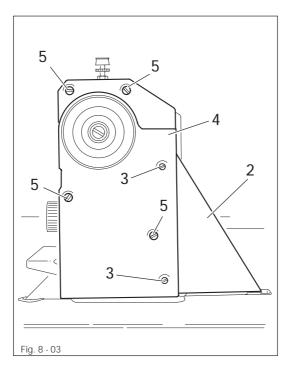


A quick motor is shown in Fig. 8-02. If another motor is used, carry out this step according to the instructions in the motor instruction manual.

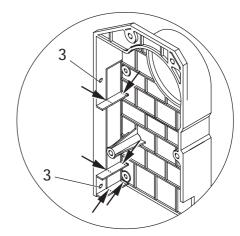
### 8.01.03 Mounting the upper V-belt guard



This step is eliminated for integrated sewing motors.



- Break out the belt guard case 1 at the points marked by the arrows.
- Fasten belt guard 2 in holes 3.
- Attach belt guard 4 to the machine case with screws 5.

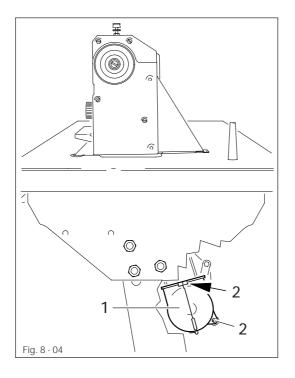


**PFAFF** 8 - 2

### 8.01.04 Mounting the lower V-belt guard



This step is eliminated for integrated sewing motors.

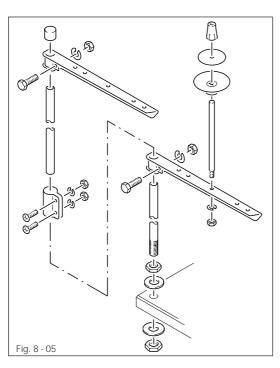


- Align belt-guard 1 in such a way that both the motor pulley and the V-belt run freely.
- Tighten screws 2.



A quick motor is shown in Fig. 8-04. If another motor is used, carry out this step according to the instructions in the motor instruction manual.

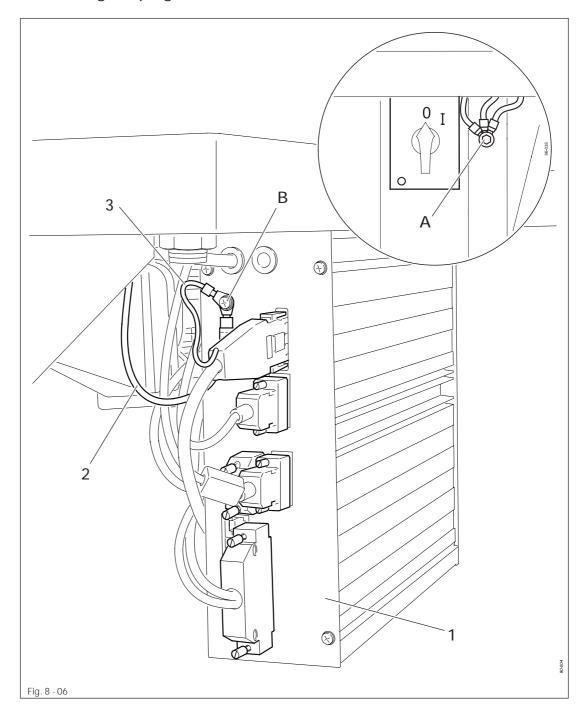
### 8.01.05 Mounting the spool holder



- Mount the spool holder as shown in Fig. 8-05.
- Insert the spool holder into the hole in the table top and fasten it with the nuts enclosed.

8 - 3 **PFAFF** 

# 8.02 Connecting the plug-in connections and earth cables

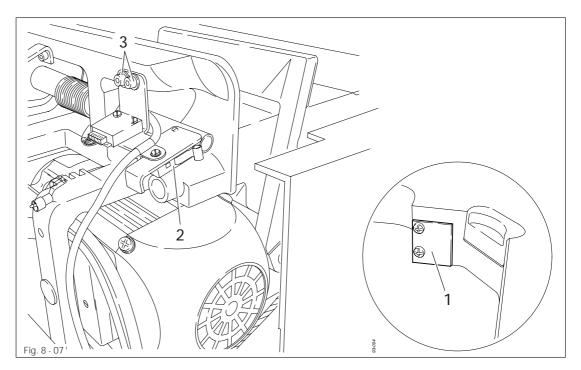


- Connect all plugs as labelled to the control box 1.
- Screw the earth cable from the sewing head and the main switch to earth point A.
- Connect earth point A to earth point B with earth cable 2.
- Screw the earth cable 3 from the motor to earth point B.

**PFAFF** 8 - 4

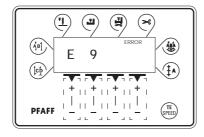
#### 8.03 Start inhibitor

### 8.03.01 Mounting the start inhibitor



- For machines delivered without a table, the plate 1 from the accessories should be mounted, so that it is on a level with the bottom edge of the table top and with the left edge of the table top cutout.
- Set the machine into the table top.
- After loosening screws 3, set switch 2 so that it is activated when the sewing head is in an upright position.
- In this position tighten screws 3.

#### 8.03.02 Checking the start inhibitor function



- Switch the machine on at the main switch and tilt back the sewing head.
   The error message "E9" must appear on the control panel.
- If the message does not appear, check the setting of safety switch 2.



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

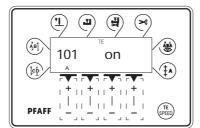
8 - 5 **PFAFF** 

8.04 Basic setting of the machine drive unit

Switch on the machine.

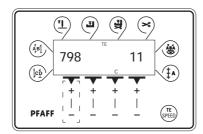


Press TE/Speed key twice to call up the input mode.

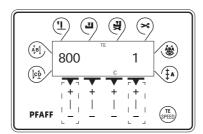




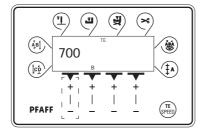
 By pressing the corresponding +/- key, call up parameter "798" and select service level "C", see Chapter 12.11.01 Selecting the user level



- 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".



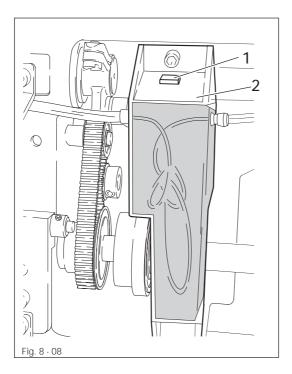
- Sew one stitch by operating the pedal.
- Turn the balance wheel in the direction of sewing until the tip of the needle is level with the top edge of the needle plate.



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

**PFAFF** 8 - 6

### 8.05 Commissioning the machine



- Check the machine, especially the electrical leads, for any damage.
- Clean the machine thoroughly (see chapter 10 Care and maintenance).
- Have specialists ensure that the machine's motor can be operated with the available electricity supply and that it is connected properly. If not, the machine must not be operated.
- Before commissioning the machine, remove grommet 1 of oil container 2.



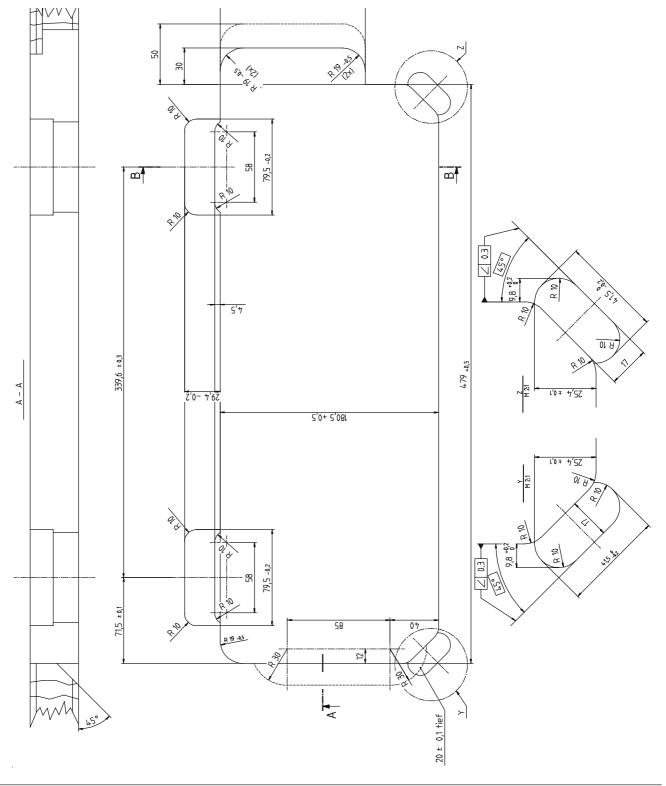
Grommet 1 is only needed for support during transportation and must not be used while the machine is in operation.

### 8.06 Switching the machine on/off

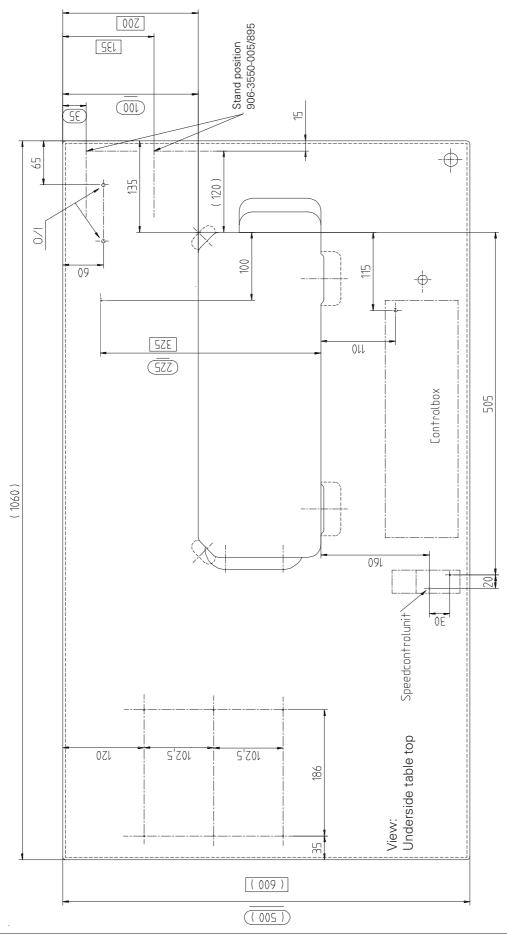
• Switch the machine on (see Chapter 7.01 On/Off switch).

8 - 7 **PFAFF** 

# 8.07 Table top cutout.



# 8.08 Mounting the table top



### 9 Preparation

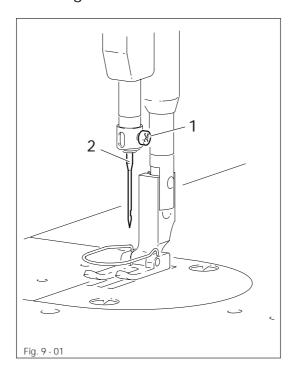


All regulations and instructions in this Instruction Manual are to be observed! Special attention is to be paid to the safety regulations!



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

#### 9.01 Inserting the needle





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



Only use needle system DBx1, 134 or 134KK, depending on machine equipment! Observe sticker on machine!

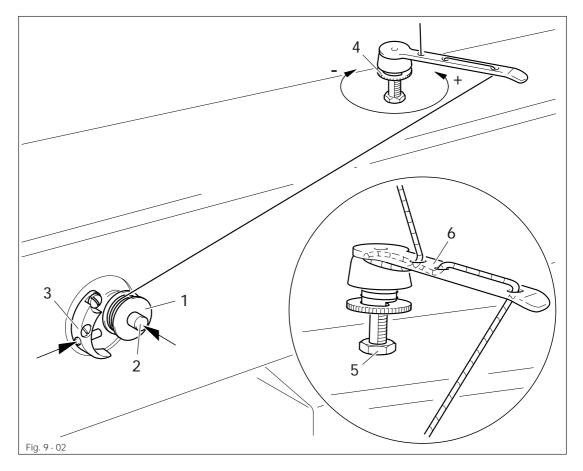
- Raise needle bar.
- Loosen screw 1 and insert needle 3 until you feel it stop.
- The long needle groove must be aligned in the direction of the machine head.
- Tighten screw 1.



The selection of the correct needle depends on the model of the machine and the material and threads being sewn (see chapter 3 Specifications).

**PFAFF** 9 - 1

### 9.02 Winding the bobbin thread, adjusting the thread tension



- Place an empty bobbin 1 onto bobbin shaft 2.
- Thread the bobbin in accordance with Fig. 9-02 and wind it anti-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 fills up during sewing.



If the machine is only being used to wind the bobbin (without sewing), a bobbin case must be inserted in the hook! (Danger of damage to the hook).

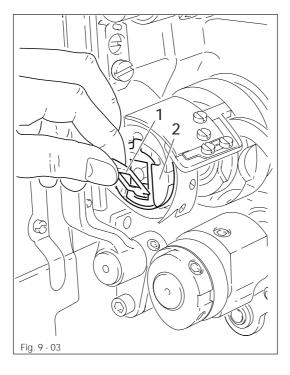
- The tension of the thread on bobbin 1 can be adjusted with knurled screw 4.
- The bobbin winder stops automatically when bobbin 1 is full.

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 due to unintentional starting of the machine!

Removing the bobbin case:

- Tilt back the machine.
- Raise latch 1 and remove bobbin case 2.

Inserting the bobbin case:

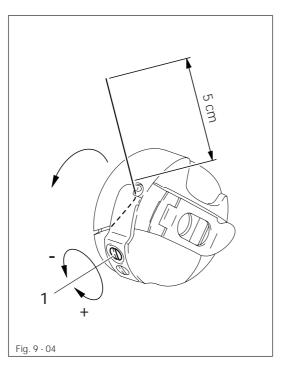
 Press bobbin case 2 until you feel it snap into the bobbin case base.



Return the machine to its upright position using **both** hands!

Danger of injury by crushing between the machine and the table top!

### 9.04 Inserting the bobbin case / Adjusting the bobbin thread tension



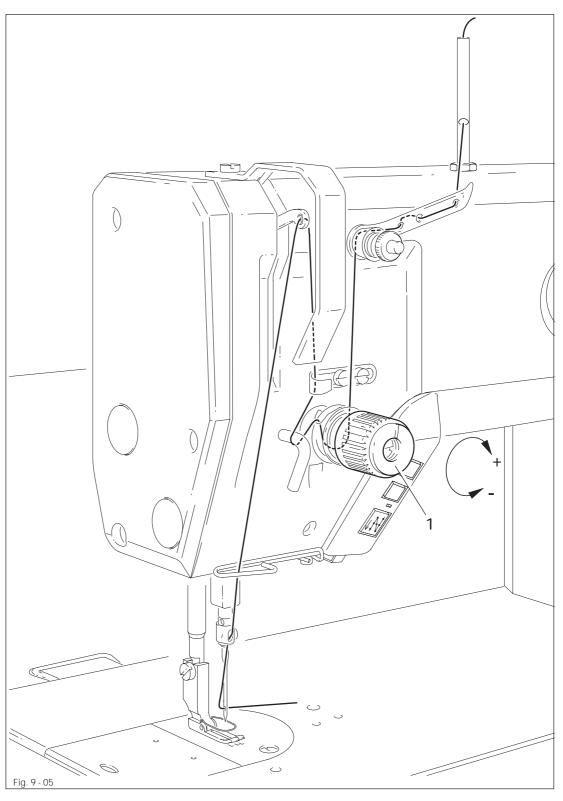
- Insert the bobbin into the bobbin case.
- Pass the thread through the slot under the spring according to Fig. 9-04.
- Pass the thread through the notch.
- Adjust the thread tension by turning screw 1.



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

**PFAFF** 9 - 3

# 9.05 Threading the needle thread / Adjusting the needle thread tension





Switch off the machine!

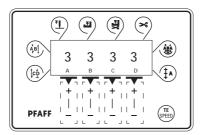
Danger of injury due to unintentional starting of the machine!

- Thread the machine as shown in Fig. 9-05.
- Adjust the needle thread tension by turning disk 1.

9 - 4 **PFAFF** 

### 9.06 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).

**PFAFF** 9 - 5

### Sewing

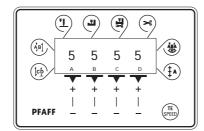
### 10 Sewing

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 7.09.02 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

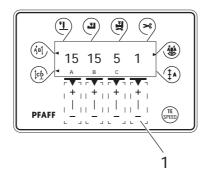
Sewing is carried out with the pedal functions, see Chapter 7.02 Pedal.



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

10 - 1 **PFAFF** 

### 10.01 Darning program



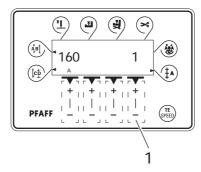




The corresponding function can be switched on or off directly with the **Darning program** key. The "counted seam" function is switched off automatically. Several darning programs with different seam sections A and/or B can be selected. The number of required darning programs can be selected by operating 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 9.06 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 9.06 Entering start and end backtacks.

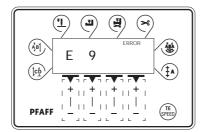
**PFAFF** 10 - 2

# Sewing

#### 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 12.13 Explanation of the error messages.



Correct the error.



• Acknowledge error correction by pressing the TE/Speed key.

10 - 3 **PFAFF** 

### Care and maintenance

#### 11 Care and maintenance

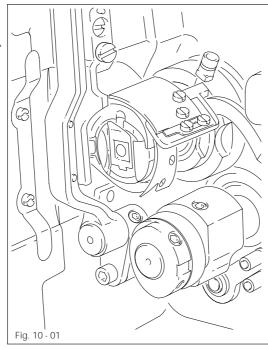
Clean	. daily, more often if in continuous operation
Check oil level	monthly



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

### 11.01 Cleaning the machine







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

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



Return the machine to its upright position using **both** hands!

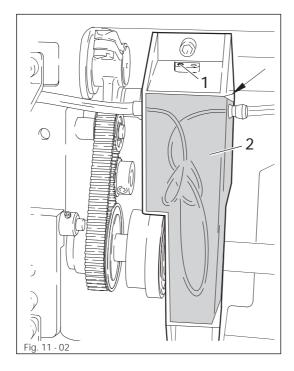
Danger of injury by crushing between the edge of the machine and the table top!

**PFAFF** 11 - 1

### Care and maintenance

## 11.02 Topping up the oil tank







The oil reservoir must always have oil in it.

- Whenever it is necessary to refill the reservoir, tilt back the machine and let it rest on the sewing head support.
- Fill oil through hole 1 into the reservoir 2 up to the level of the front edge (see arrow).



Return the machine to its upright position using **both** hands!

Danger of injury by crushing between the machine and the table top!



Only use oil with a mean viscosity of 10.0 mm $^2$ /s at 40 $^{\circ}$ C and a density of 0.847 g/cm $^3$  at 15 $^{\circ}$ C.



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

11 - 2 **PFAFF** 



On the **PFAFF 1181** and **1183** do not use a screw clamp on the needle bar! The special coating of the needle bar could be damaged.

#### 12.01 Notes on adjusting

All adjustments in these adjustment instructions are based on a completely installed machine and must only be carried out by appropriately trained specialists. Covers on the machine which sometimes have to be removed and replaced for checks and adjustment work are not mentioned here. The screws and nuts in brackets () are attachments of machine parts which are to be loosened before making the adjustment and tightened again after the adjustment has been carried out.

#### 12.02 Tools, gauges and other accessories for adjusting

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 set of wrenches with jaw widths from 7 to 14 mm
- 1 set of Allan keys from 1.5 to 6 mm
- 1 metal rule, (Part No. 08-880 218-00)
- 1 feed dog adjustment gauge, Part No. 61-111 639-71
- 1 adjustment pin (5 mm dia.), Part No. 13-033 346-05
- Adjustment gauge, part No. 61-111 639-70
- 1 adjustment gauge for tightening the hook drive belt, Part-No. 61-111 639-76
- Sewing thread and test material

#### 12.03 Abbreviations

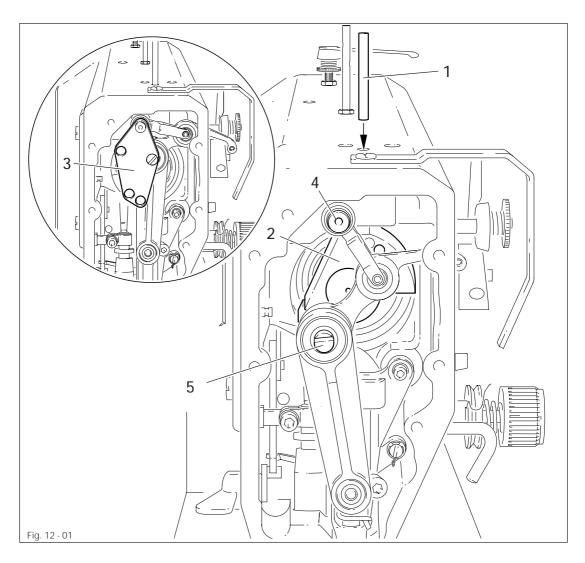
TDC = top dead center

BDC = bottom dead center

#### 12.04 Checking and adjusting aids



With the aid of blocking pin 1 (part No. 13-033346-05) and if necessary adjustment gauge 3 (part No. 61-111 639-70) the machine can be blocked in the following positions for adjustment





#### Needle bar position 1.8 mm past b.d.c.

- Turn balance wheel until needle bar is roughly in required position
- Insert blocking pin 1 in hole
- Turn balance wheel slightly back and forth until blocking pin engages crank 2

#### Needle bar position 0.6 mm past t.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge 3 onto pins 4 and 5, making sure right side is used (for 30 or 36 mm needle bar stroke)

#### Needle bar position 0.6 mm past b.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge 3 onto pins 4 and 5, making sure right side is used (for 30 or 36 mm needle bar stroke)

12 - 2

## 12.05 Adjusting the basic machine

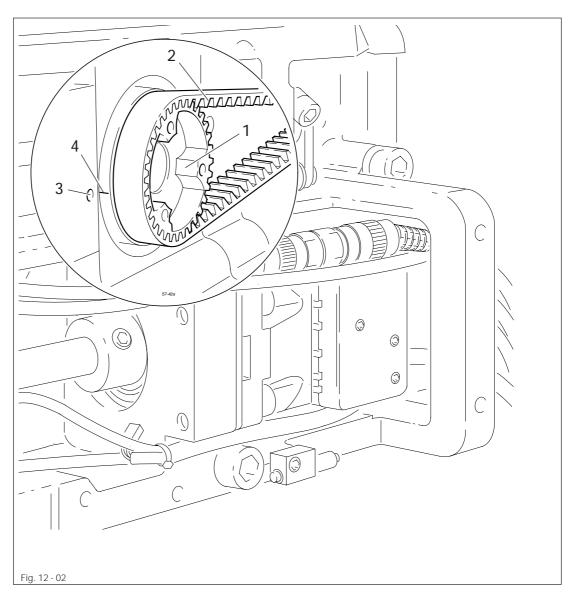
#### 12.05.01 Basic position of the machine drive



This adjustment is only required if toothed belt 2 has been removed.

#### Requirement

When the needle bar position is 0.6 mm above the BDC, the marks on the machine housing 3 and toothed belt wheel 1 must be flush with each other.



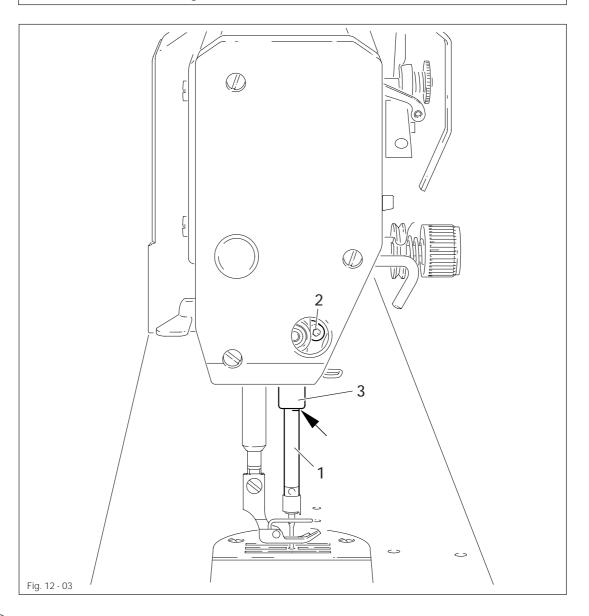


- Set needle bar at 0.6 mm past b.d.c.
- Turn toothed belt sprocket 1 according to Requirement and push on toothed belt 2.

## 12.05.02 Preadjusting the needle height

#### Requirement

When the needle bar is positioned 1.8 mm above BDC, the mark on the needle bar 1 must be flush with the bottom edge of the needle bar frame 3.





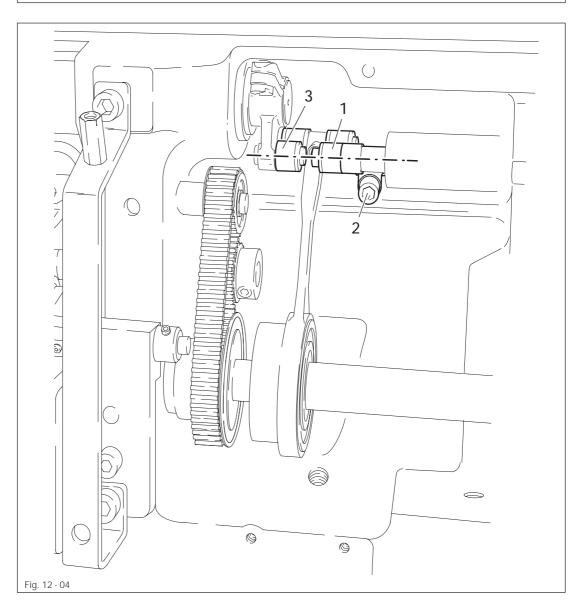
- Set needle bar at 1.8 mm past b.d.c. and block machine with blocking pin, see Chapter 12.04 Checking and adjusting aids.
- Move needle bar 1 (screw 2), without turning it, according to the requirement.

12 - 4 **PFAFF** 

## 12.05.03 Bottom feed neutral position

#### Requirement

At stitch length setting "0", cranks 1 and 3 must be flush and the feed dog must not make any feeding motion when the balance wheel is turned.



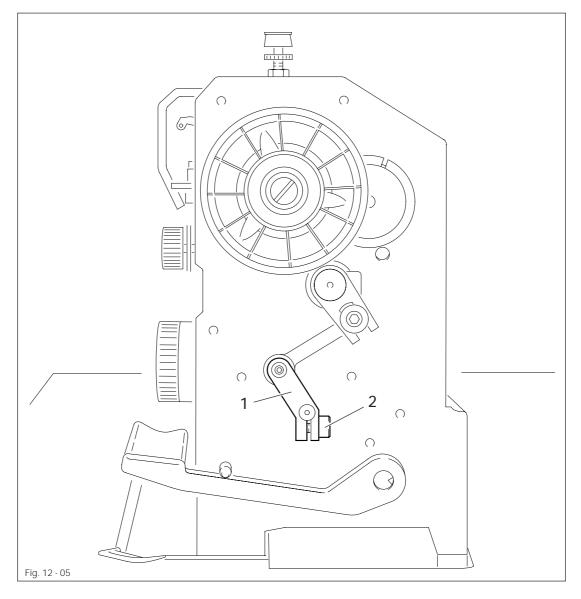


- Raise the presser foot and set the stitch length to "0".
- Turn crank 1 (screw 2) according to the requirement.

12.05.04 Neutral position of the needle feed (only on PFAFF 1181)

## Requirement

At stitch length setting "0" the needle bar must not make any feeding motion when the balance wheel is turned.





- Set stitch length "0".
- Turn crank 1 (screw 2) according to Requirement.

12 - 6 PFAFF

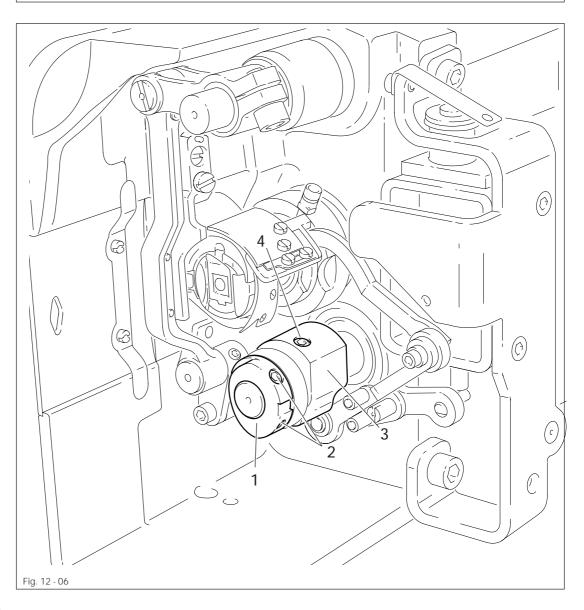
### 12.05.05 Bottom feed lifting motion

#### Requirement

At stitch length setting "0" and needle bar position 0.6 past b.d.c. on the **PFAFF 1181** and at needle bar position t.d.c. on the **PFAFF 1183**,

- 1. the bottom feed dog must be at its highest position,
- 2. control cam 3 must rest on lifting eccentric 1.

The flat on control cam 3 must be parallel with the bedplate at needle bar position t.d.c. on all machines types.





- Set stitch length "0" and set needle bar at required position
- Turn eccentric 1 (screws 2) according to Requirement 1.
- Adjust control cam 3 (screws 4) according to Requirement 2.
- Set needle bar at t.d.c. and adjust control cam 3 (screw 4) according to Requirement.



On machines without thread trimmer -900/24, control cam 3 serves as a balance weight eccentric.

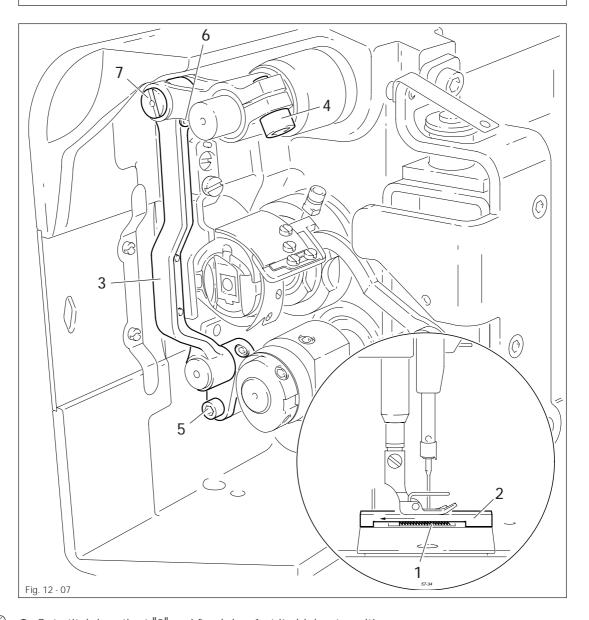
Fig. 12-06 shows a machine with thread trimmer fitted.

## 12.05.06 Bottom feed dog height

#### Requirement

When feed dog 1 is at its highest point at stitch length setting "0" it must

- 1. be centred in the feed slot crosswise and in feeding direction
- 2. Rest on feed dog adjustment gauge 2 over its entire length.



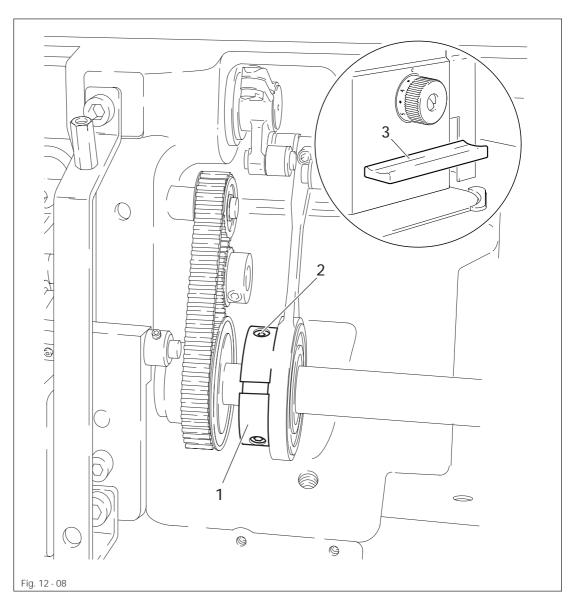


- Set stitch length at "0" and feed dog 1 at its highest position
- Raise the presser foot.
- Place feed dog adjustment gauge 2 on the needle plate cutout with the arrow in sewing direction so that it is flush with the front edge, and lower the presser foot onto it.
- Adjust feed bar 3 (screws 4) according to Requirement 1.
- Loosen screws 5 and 6.
- Adjust feed bar 3 or eccentric 7 according to Requirement 2.
- Tighten screws 5 and 6 firmly.

## 12.05.07 Feed dog motion of bottom feed dog

#### Requirement

With the needle bar at a position 0.6 past b.d.c. on the PFAFF 1181 or in position 0.6 past t.d.c. on the PFAFF 1183 the feed dog must not make any feeding motion when reverse-feed lever 3 is operated at the longest stitch length setting.



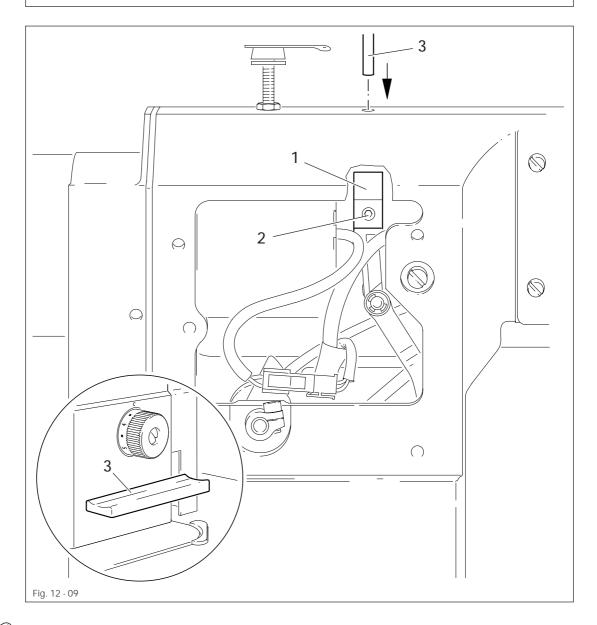


- Set the longest stitch and the needle bar at the corresponding position.
- Adjust eccentric 1 (loosen screws 2 a little) according to Requirement, but make sure it is not moved sideways.

## 12.05.08 Feeding motion of needle feed (only on PFAFF 1181)

#### Requirement

When the longest stitch length is set and the needle bar is positioned 0.6 mm past b.d.c., the needle should not move when the reverse-feed key 4 is operated.



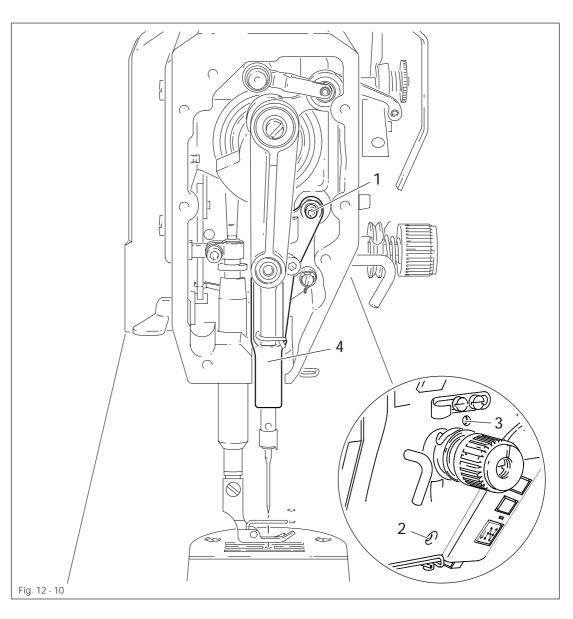


- Bring the needle bar into the position 0.6 mm past t.d.c.
- Turn eccentric 1 (screws 2) until the adjustment pin 3 locks into place.

### 12.05.09 Needle in needle hole center (only on PFAFF 1183)

#### Requirement

The needle must penetrate the needle hole exactly in the middle.



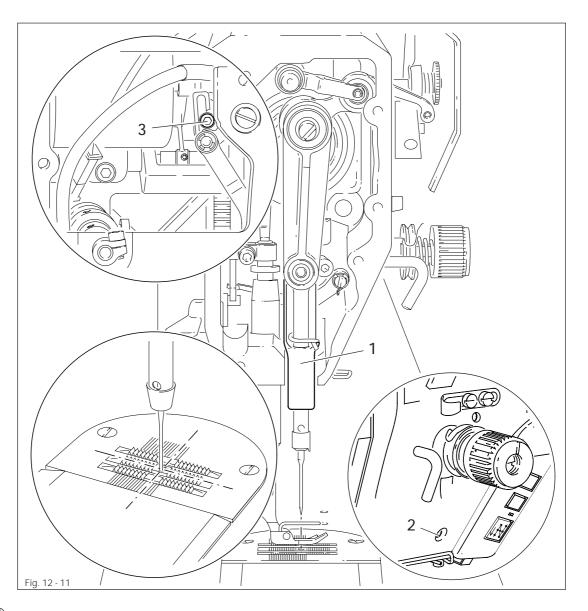


- Set the needle in the needle hole.
- Loosen screws 1, 2 and 3.
- Move the needle bar frame 4 according to the requirement.
- Tighten screw 2 and turn screw 3 slightly.
- Via screw 1, bring the retracted guide bolt to the eye of the needle bar frame 4 and tighten it.
- Turn the handwheel a few times to prevent distortion to the needle bar frame 4.
- Tighten screw 3.

## 12.05.10 Needle to needle hole centre (on PFAFF 1181)

## Requirement

The needle must enter excatly in the centre of the needle hole.





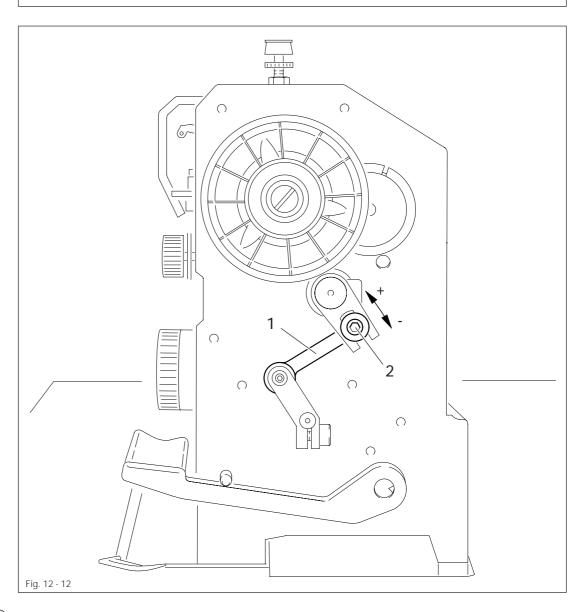
- Set stitch length "0".
- Set the needle in the needle hole by turning the balance wheel
- Turn needle bar frame 1 (screws 2 and 3) according to Requirement.

12 - 12 **PFAFF** 

## 12.05.11 Synchronous strokes of needle- and drop feed (only on PFAFF 1181)

#### Requirement

At the longest stitch length setting the needle and feed dog must move by the same stroke when the balance wheel is turned.



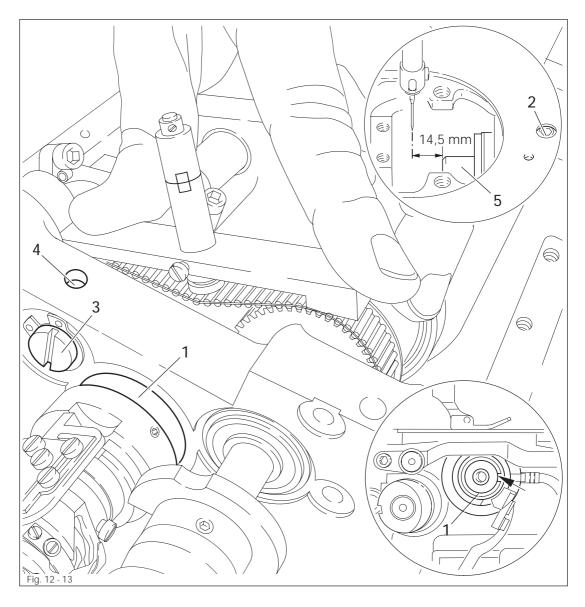


- Set the longest stitch.
- Turn crank 1 (screws 2) according to Requirement.

### 12.05.12 Hook shaft bearing and toothed belt tension

#### Requirement

- 1. The front edge of the hook shaft 6 must be at a distance of 14.5 mm to the needle center. At the same time, the slot in the hook shaft bearing 1 (see arrow) must be parallel to the bedplate and pointing opposite to the direction of sewing.
- 2. The toothed belt should be tightened in such a way that, when the gauge is pushed onto the toothed belt, the marking in the gauge window corresponds to the marking on the bushing.





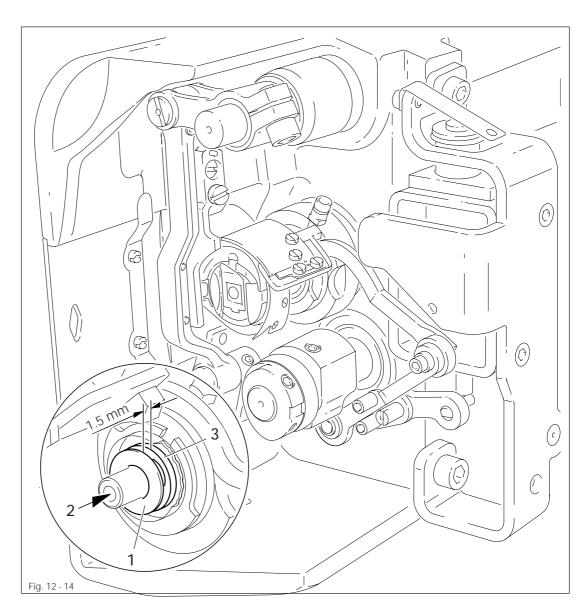
- Align hook shaft bearing 1 (screw 2) according to requirement 1.
- Push the gauge (Part-No. 61-111 639-76) onto the toothed belt so that it is centred to the toothed belt and touching the bearing of the sliding shaft. The gauge window must be facing the hook.
- Eccentric 3 (screw 4) clockwise in accordance with requirement 2, taking care that the axial position of eccentric 3 is not altered.

12 - 14

#### 12.05.13 Hook lubrication

#### Requirement

- 1. The centrifugal disk 1 must be positioned 1.5 mm in front of the oil ring 3.
- 2. When the machine is running at full speed, **after approx**. **10 seconds** a mark should be made by a fine stripe of oil on the strip of paper placed over the needle plate cutout.





The adjustment is only necessary if the wick has been replaced. When replacing the wick, make sure that the new wick is impregnated with oil.



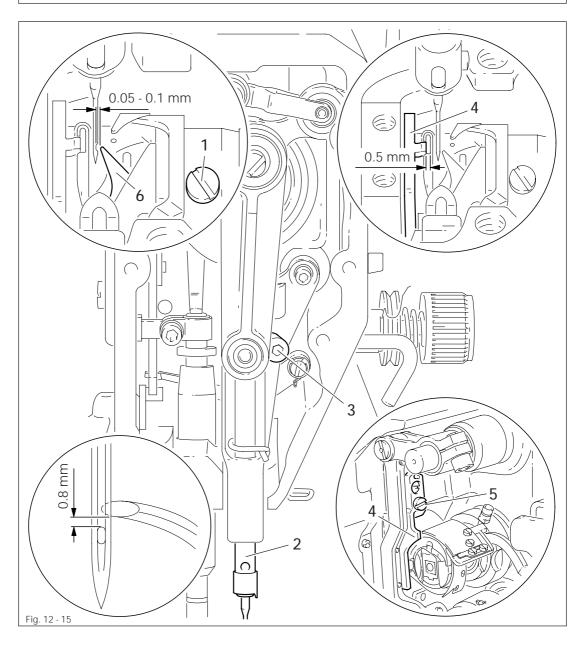
- Move the centrifugal disk 1 (screw 2) according to requirement 1.
- Check requirement 2. If necessary, move centrifugal disk 1.

12.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger

#### Requirement

With the needle at 1.8 mm after BDC,

- 1. the hook point 6 must point to the middle of the needle and be at a distance of 0.05 mm 0.1 mm to the clearance cut of the needle, and
- 2. the top edge of the needle eye must be **0.8 mm** below the hook point.
- 3. Between the projection of the bobbin case position finger 4 and the bottom of the retaining groove there should be a distance of 0.5 mm.



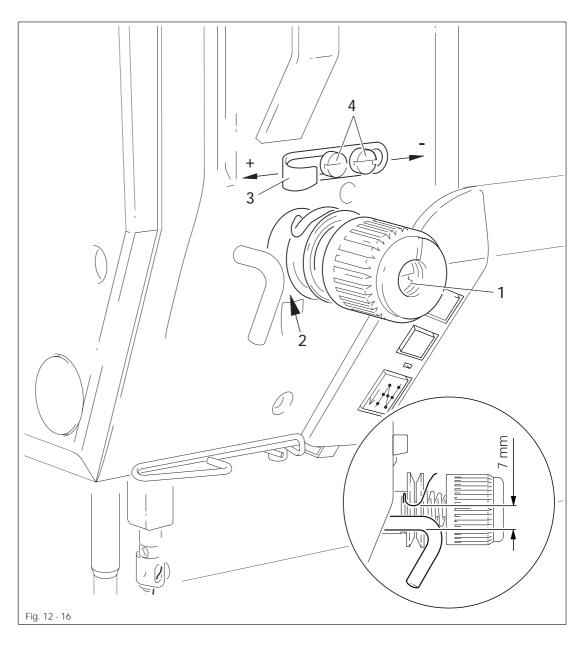


- Using the adjustment pin, position the needle bar at 1.8 mm after BDC.
- Adjust the hook according to requirement 1.
- Tighten screw 1.
- Move needle bar 2 (screw 3) without turning it according to requirement 2.
- Align bobbin case position finger 4 (screw 5) according to requirement 3.

### 12.05.15 Thread check spring and slack thread regulator

#### Requirement

- 1. The motion of the thread check spring must be completed when the needle point enters the material (spring stroke approx. 7 mm).
- 2. When the thread loop is at its largest when going around the hook, the thread check spring must have moved by approx. 1 mm.





- Turn thread tension 1 (screw 2) according to requirement 1.
- Turn thread tension 3 (screw 4) according to requirement 2.



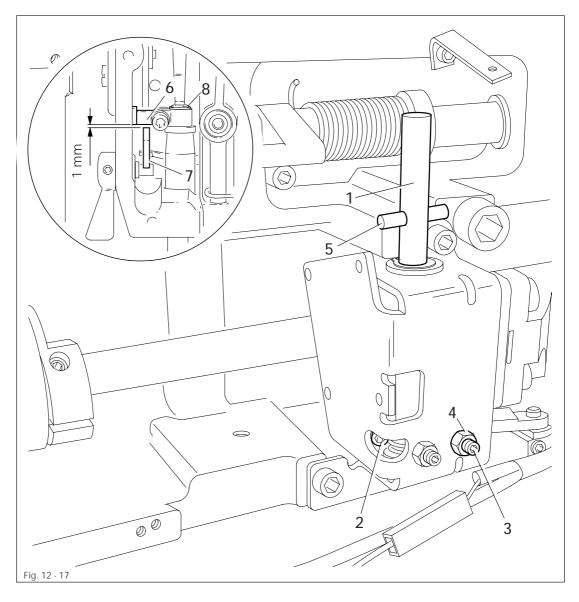
Due to technical sewing reasons it may be necessary to deviate from the spring stroke indicated above.

Move the slack thread regulator 3 (screw 4) toward the "+" (= more thread) or toward the "-" (= less thread)  $\,$ 

#### 12.05.16 Position of knee lever

#### Requirement

- 1. When the knee lever is in its resting position, the axle 5 must be parallel to the bedplate.
- 2. When the presser foot is resting on the needle plate, the presser bar lifting lever 6 must be touching the circlip 8 lightly and be at a distance of approx. 1 mm from lifting piece 7.





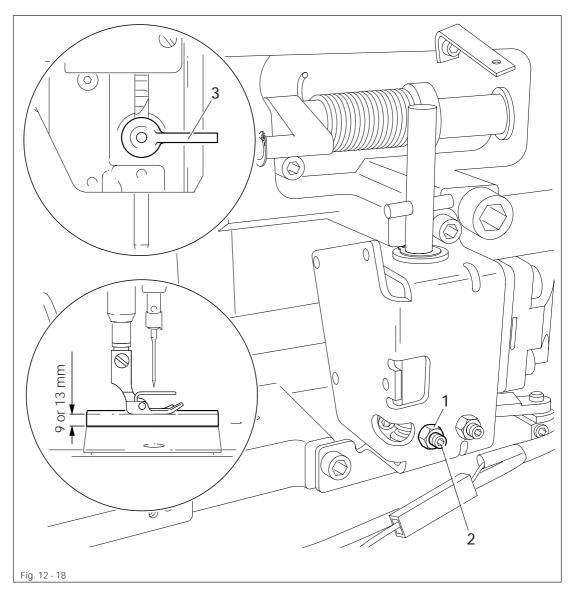
- Lower the presser foot onto the needle plate.
- Turn shaft 1 (screws 2) according to Requirement 1.
- Turn screw 3 (nut 4) according to Requirement 2.

### 12.05.17 Knee lever stop

#### Requirement

When the knee lever is fully actuated,

- 1. the presser foot must be raised approx. **9 mm** (or approx. **13 mm** for a large needle bar stroke) above the needle plate, and
- 2. lever 3 must swing down automatically.



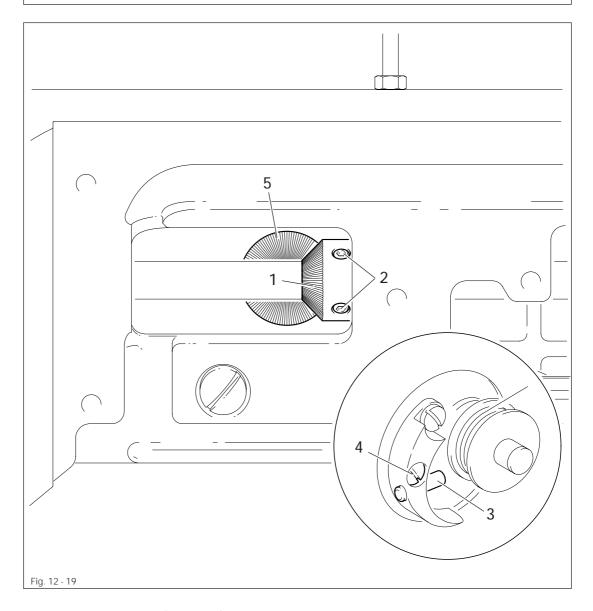


- Loosen nut 1 and unscrew screw 2 a few turns.
- Raise the presser foot and slide a 9 mm (for small needle bar stroke) or 13 mm (for large needle bar stroke) thick spacer under the presser foot.
- Swing down lever 3
- Move the knee lever until it is fully actuated. The presser foot must remain on the spacer.
- Now turn screw 2 as far as it will go.
- Turn screw 2 a half turn back and tighten nut 1.

#### 12.05.18 Bobbin winder

#### Requirement

- 1. With the bobbin winder on, the drive wheel 1 must engage reliably.
- 2. With the bobbin winder off, the friction wheel 5 must not be driven by the drive wheel 1.
- 3. The bobbin winder must turn off automatically when the thread level is approx. 1 mm from the edge of the bobbin.



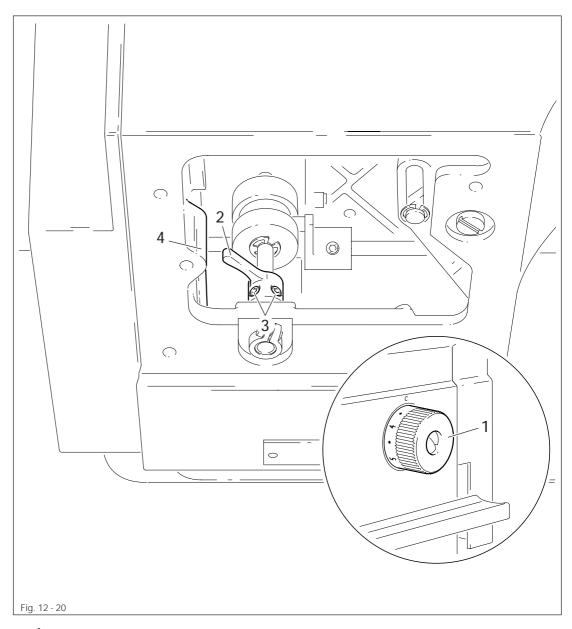


- Move drive wheel 1 (screws 2) in accordance with requirement 1 and 2.
- Move bolt 3 (screw 4) in accordance with requirement 3.

## 12.05.19 Limiting the stitch length



The maximum stitch length which can be selected can be limited mechanically.





When using Version A and B part sets, the maximum adjustable stitch length must **not** be larger than **3.0** or **4.5** mm (see chapter 3 Specifications)!

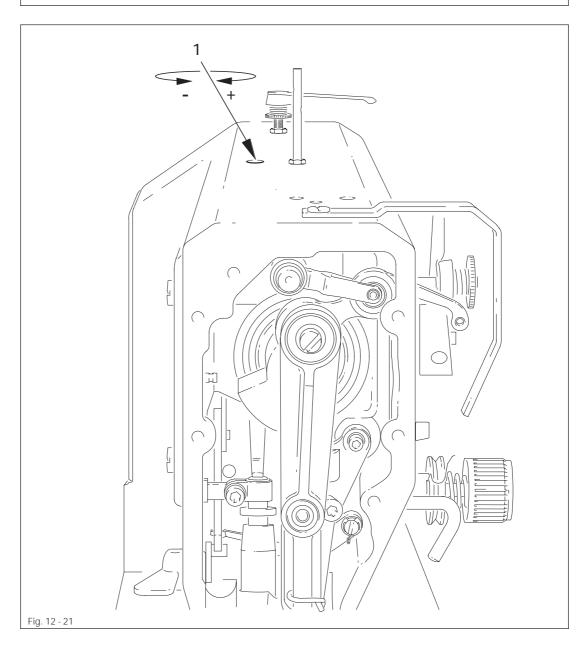


- Set the desired maximum stitch length with regulator disk 1.
- Move crank 2 (screws 3) down against stop 4.

# 12.05.20 Presser foot pressure

## Requirement

The material must be fed reliably. In the process, pressure marks on the material must not be made.





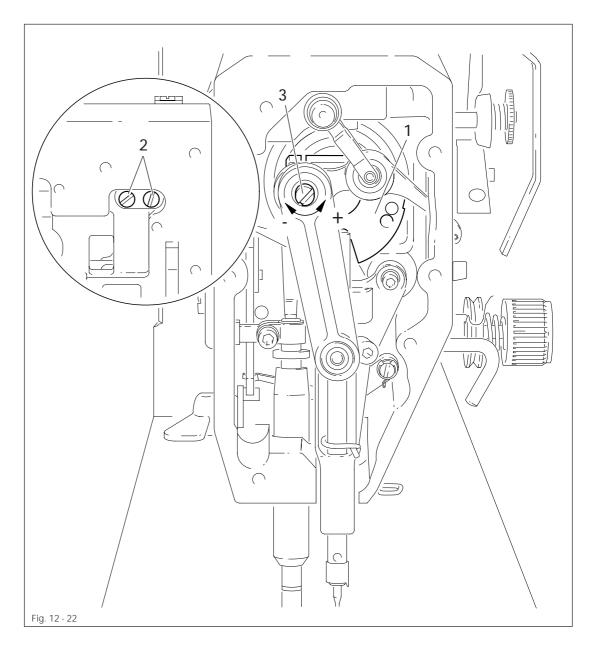
• Turn screw 1 in accordance with the requirement.

12 - 22 **PFAFF** 

### 12.05.21 Modifying the needle bar stroke



The needle bar stroke is preset in the factory according to requirement. The needle bar stroke can be modified later if specific operating conditions make it necessary to do so.





When the needle bar stroke is altered, it is absolutely necessary to readjust the needle height! With a 36 mm needle bar stroke, the maximum speed must be limited to 3800 spm.



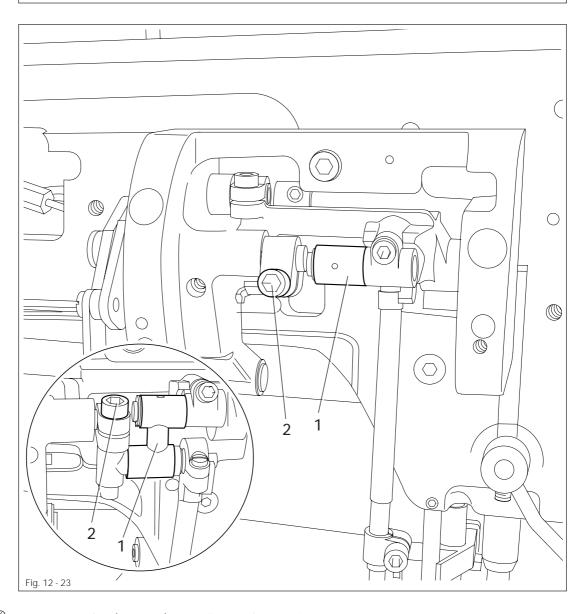
- Via the hand wheel, turn crank 1 until the screws 2 can be accessed from the side opening of the housing.
- Turn eccentric 3 (screws 2) as far as possible toward "+" (= large needle bar stroke) or toward "-" (= small needle bar stroke).
- Adjust needle height (see chapter 12.05.02 Preadjusting the needle height and/or chapter 12.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger).

# 12.06 Adjusting the edge trimmer –731/01

# 12.06.01 Zero position of the knife

#### Requirement

With the edge trimmer switched off, the knife should not move when the balance wheel is turned.





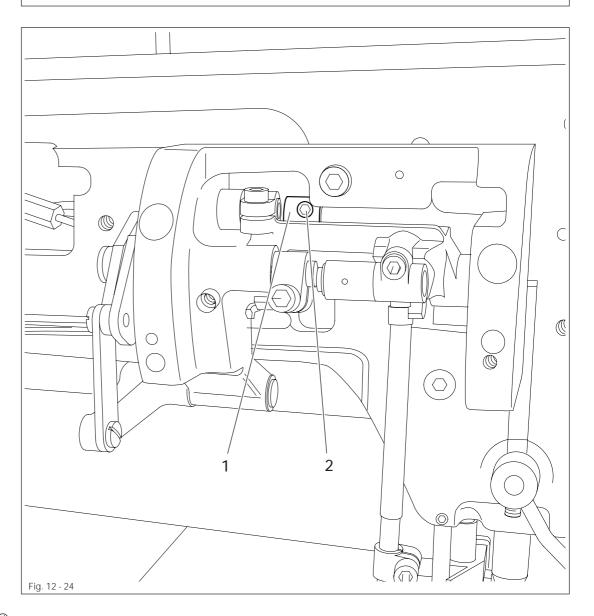
• Turn crank 1 (screw 2) according to the requirement.

12 - 24 **PFAFF** 

## 12.06.02 Cutting motion

#### Requirement

With the edge trimmer switched on and the needle bar at its t.d.c. on the PFAFF 1183, or at its b.d.c. on the PFAFF 1181, the knife should be at the top of its stroke.



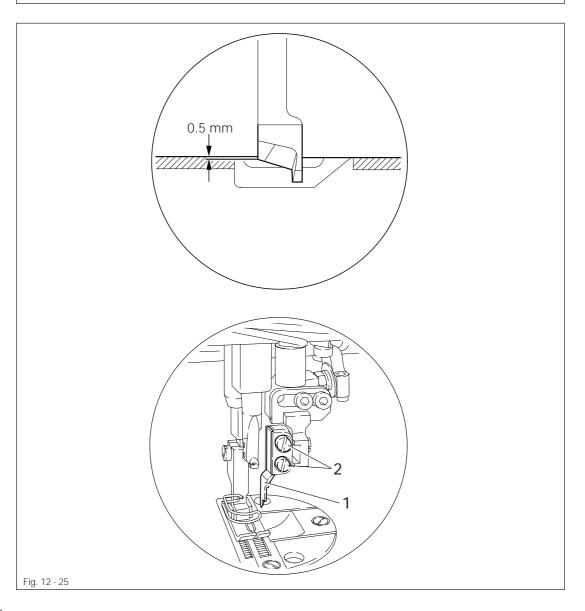


- Switch on the edge trimmer and bring the needle bar to t.d.c. or b.d.c. (see requirement).
- Turn eccentric 1 (two screws 2) according to the requirement.

# 12.06.03 Knife height

#### Requirement

When the knife is at the bottom of its stroke, the front edge of the knife blade should be approx. **0.5 mm** below the top edge of the stationary knife.





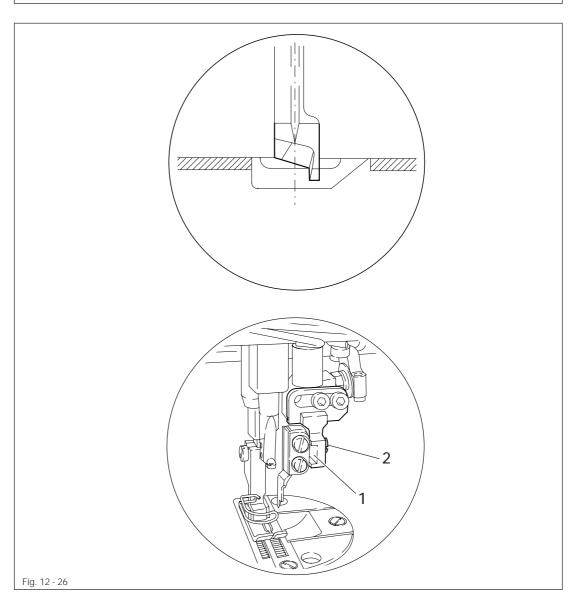
- Switch on the edge trimmer and bring the knife to the bottom of its stroke.
- Adjust knife 1 (screws 2) according to the requirement.

12 - 26

# 12.06.04 Knife position in sewing direction

#### Requirement

When the needle is at its b.d.c., the centre of the knife blade should be positioned at "needle centre".



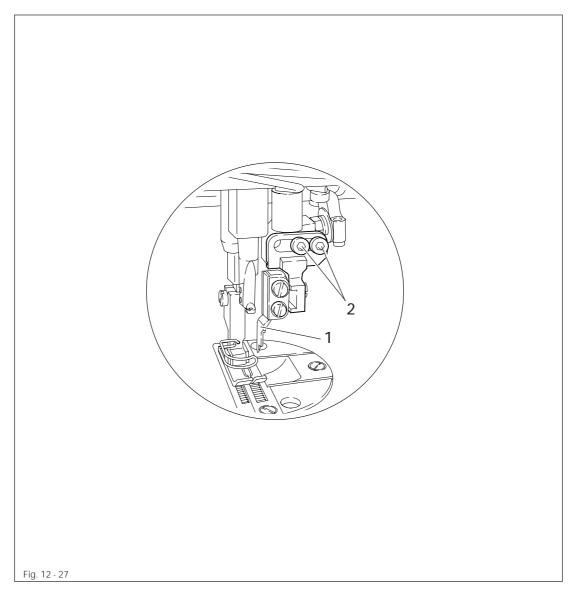


• Adjust knife bracket 1 (screw 2) according to the requirement.

12.06.05 Knife position crosswise to sewing direction

## Requirement

The knife should be resting on the stationary knife 3 with light pressure.





• Adjust knife bracket 1 (screw 2) according to the requirement.

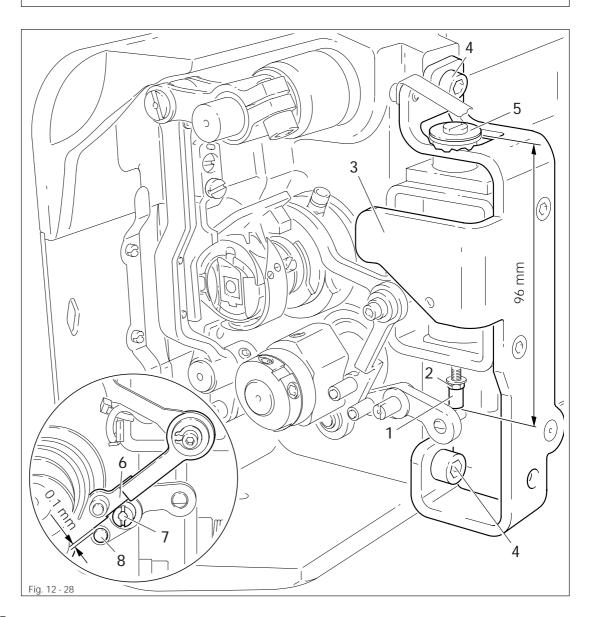
12 - 28 **PFAFF** 

# 12.07 Adjusting the thread trimmers -900/24

## 12.07.01 Magnet setting

#### Requirement

- 1. The distance between the bottom edge of the plunger and the top edge of the washer 5 must be 96 mm.
- 2. When the thread trimmer is in resting position (magnet retracted), the roller lever 6 must rest against bolt 7 and be at a distance of approx. 0.1 mm from roller 8.



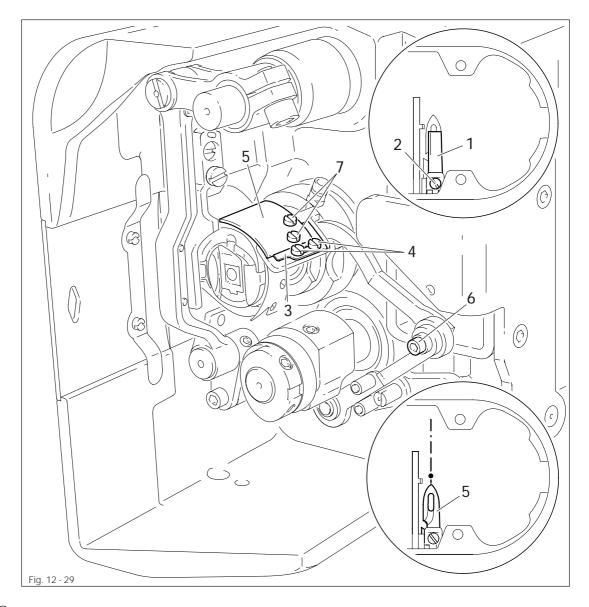


- Turn plunger 1 (nut 2) according to requirement 1.
- Bring thread trimmer into resting position.
- Move magnet holder 3 (screws 4) according to requirement 2.

## 12.07.02 Lateral alignment of the thread catcher

#### Requirement

- 1. The tip of the thread catcher 5 must point exactly to the center of the needle.
- 2. The thread catcher 5 must be horizontal. It must not graze anything when it is operating.





- Remove knife 1 (screw 2).
- Move needle bar to its BDC.
- Loosen stop 3 (screws 4).
- Position thread catcher 5 (screw 6) manually in front of the needle.
- Align thread catcher 5 (screws 7) according to the requirements.



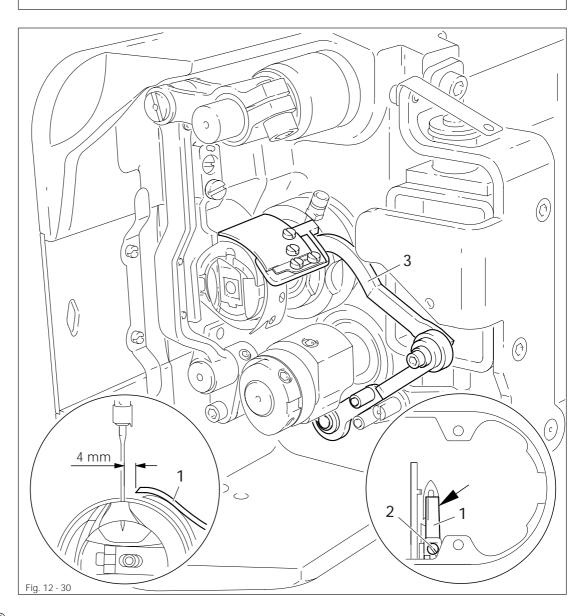
For further adjustments, leave knife 1 removed and stop 3 loosened.

12 - 30

### 12.07.03 Knife position

#### Requirement

- 1. There must be a distance of 4 mm between the cutting edge of the knife and the needle.
- 2. The right edge of the knife 1 must not extend beyond the right edge of the thread catcher (see arrow).



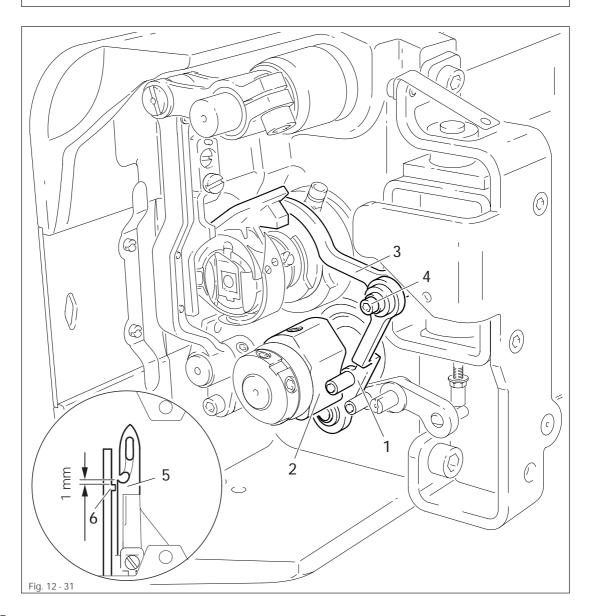


- Bring the needle bar to BDC.
- Slide knife 1 under the locking tab and align according to requirement 1.
- Tighten screw 2 lightly.
- Adjust thread catcher carrier 3 by hand until the wedge point in the thread catcher is positioned just in front of the cutting edge of the knife.
- Align knife 1 according to requirement 2 and tighten screw 2.

## 12.07.04 Front point of reversal of the thread catcher

#### Requirement

When the thread catcher 5 is at its front point of reversal, the tip of the thread catcher cutout should be 1 mm in front of the bobbin case position finger 6.





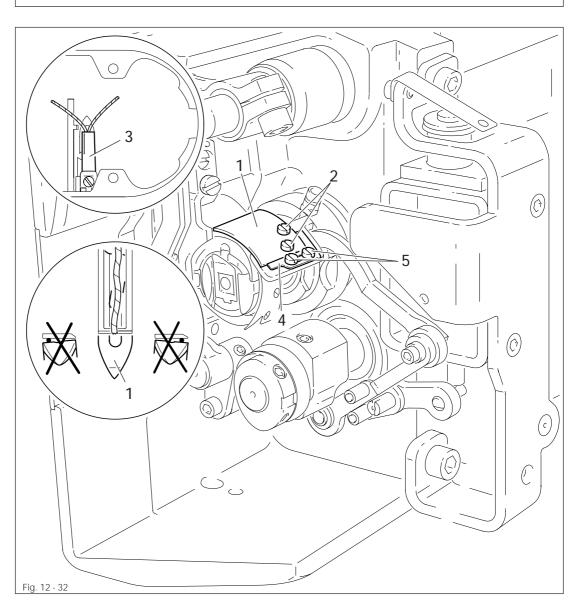
- Swing roller level 1 into the lowest point of the control cam 2.
- Move thread catcher carrier 3 (screw 4) according to the requirement.

12 - 32

## 12.07.05 Manual trimming check

#### Requirement

Two threads must be cut perfectly both left and right in the cutout of thread catcher 1.





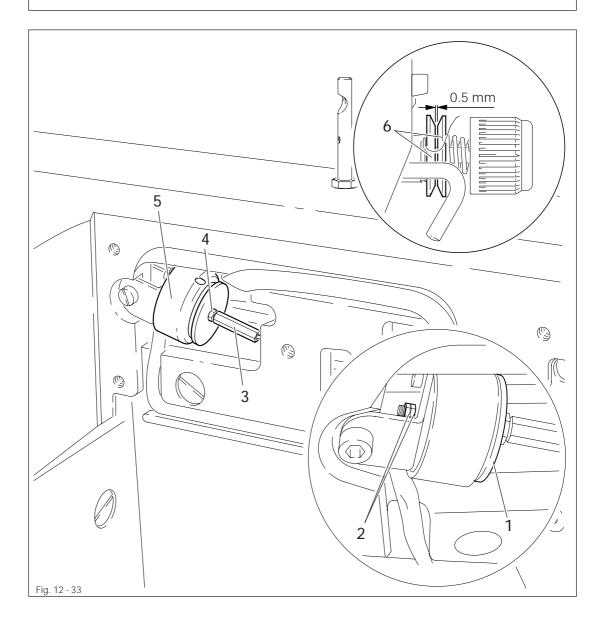
- Move thread catcher 1 by hand to its front point of reversal.
- Double the thread and insert into catcher cutout.
- Carry out trimming operation manually.
- If the threads are not cut according to the requirement, align thread catcher 1 (screws 2) with knife 3 accordingly.
- Move stop 4 against thread catcher 1 and tighten screws 5.
- Check chapter 12.07.02 Lateral alignment of the thread catcher, and readjust if necessary.

## Adjustment

#### 12.07.06 Needle thread tension release

#### Requirement

- 1. The magnet lift should be 1.5 mm.
- 2. When the magnet 5 is operated by hand, there should be a distance of at least 0.5 mm between the tension discs 6.





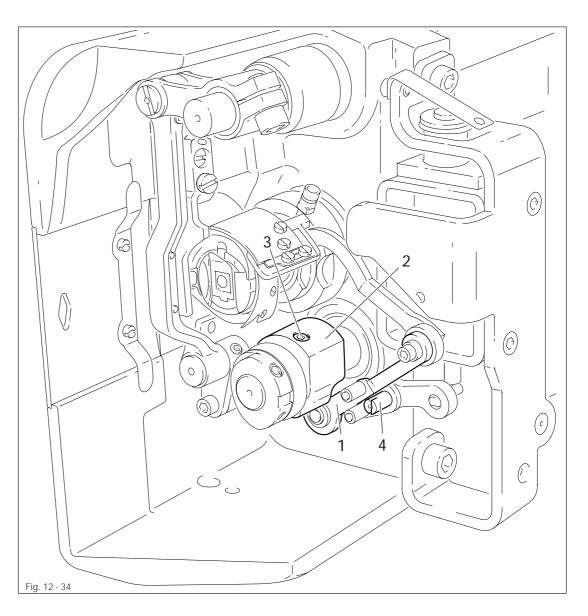
- Adjust disc 1 (nuts 2) according to the requirement.
- Adjust screw 3 (nut 4) according to the requirement.

12 - 34

## 12.07.07 Readjusting the control cam

#### Requirement

When the take-up lever is at TDC, the roller lever 1 must be brought from the highest point of the control cam 2 and moved against bolt 4 (basic position).





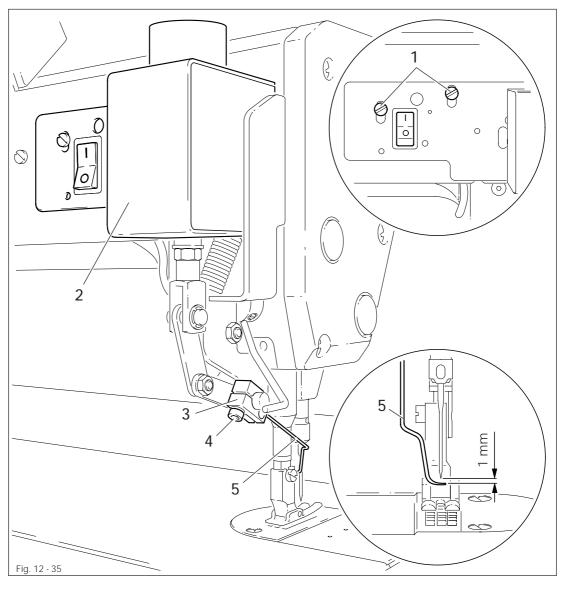
- Switch on machine and sew a few stitches.
- Trigger cutting operation.
- Check to see if the thread was cut cleanly and roller level 1 is in basic position.
- If necessary, turn control cam 2 (screws 3) according to the requirement.

## 12.08 Adjusting the thread wiper -909/04

#### 12.08.01 Thread wiper movement

#### Requirement

- 1. The thread wiper 5 must not strike against anything when it is moving.
- 2. When the take-up lever is at TDC, the thread wiper 5 is to move under the needle point and clear it by approx. 1 mm when the engaging solenoid 2 is operated.





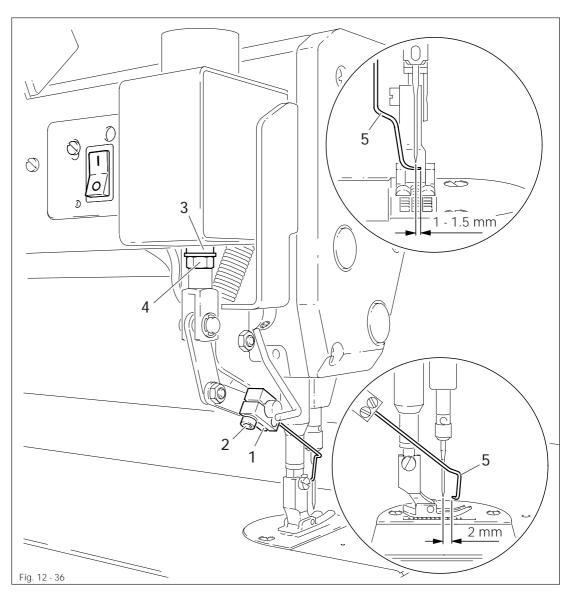
- Bring the take-up lever to TDC.
- Loosen screws 1.
- Push thread wiper 2 parallel to the bedplate to the very top and tighten screws 1 slightly.
- Turn bracket 3 (screw 4) according to requirement 1.
- Move thread wiper 2 parallel to the bedplate according to requirement 2.
- Tighten screws 1.

### 12.08.02 Thread wiper position

#### Requirement

Seen from the direction of sewing

- 1. The point of the thread wiper 5 must be approx. 1 1.5 mm to the right of the needle, and
- 2. The thread wiper 5 must be approx. 2 mm in front of the needle in its foremost position.



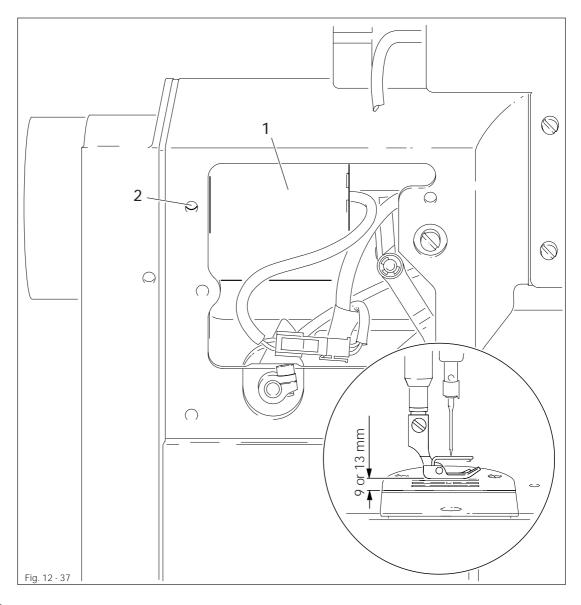


- Slide bracket 1 (screw 2), without turning it, on the shaft according to requirement 1.
- Turn rod 3 (nut 4) according to requirement 2.

## 12.09 Adjusting the automatic presser foot lift -910/06

#### Requirement

When the automatic presser foot lift is operated, the clearance between the presser foot and the needle plate must be 9 mm for a small needle bar stroke and 13 mm for a large needle bar stroke.





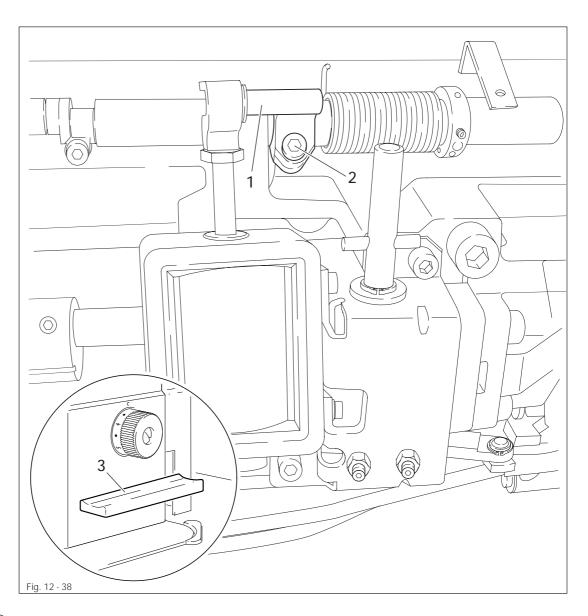
• Move magnet 1 (screw 2) according to the requirement.

12 - 38 **PFAFF** 

## 12.10 Adjusting the back-tacking mechanism –911/37

#### Regel

When the longest stitch length is set, the reverse-feed control switch 3 operated and the plunger extended, lever 1 should not touch the bed-plate.





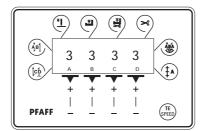
• Adjust lever 1 (screw 2) according to the requirement.

## Adjustment

## 12.11 Parameter settings

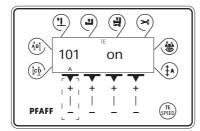
## 12.11.01 Selecting the user level

Switch on the machine.



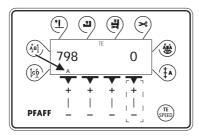


• Press the TE/Speed key twice to call up the input mode.





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

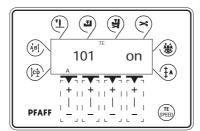
The selected user level is displayed on the screen. (see arrow)

### 12.11.02 Example of a parameter input

Switch on the machine.

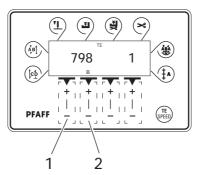


• Press the TE/Speed key twice to select the input mode.



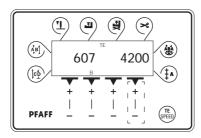


By pressing the corresponding plus/minus key select parameter "798" and the desired user level, see Chapter 12.11.01 Selecting the user level.





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.

# Adjustment

## 12.11.03 Liste der Parameter

Gruppe	Parameter	Bedeutung	Nutzer- ebene	Einstell- bereich	Einstell- wert
1	101	Control panel beep tone	A, B, C		on
6	605	Speed display	В, С		off
	607	Speed max.	В, С	300 - 6000	4000
	609	Cutting speed	В, С	60 - 500	180
	660	Bobbin thread control 0 = off 1 = thread monitor 2 = reverse counter	A,B,C	0 - 2	0
7	700	Needle postion 0 (needle reference position)	В,С	0 – 255	
	702	Needle position 1 (needle lowered)	В,С	0 – 255	90
	703	Needle position 2 (take-up lever raised)	В, С	0 - 255	226
	705	Needle position 5 (end of cutting signal 1)	В, С	0 - 255	200
	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	164
	797	Hardwaretest	В, С		off
	798	User level 0 = User level 1 = Technician level 11 = Service level	A,B,C	0,1,11	0
	799	Selected machine class	С	1 - 3	1
8	800	Rotating direction of the motor	С	0 - 1	1

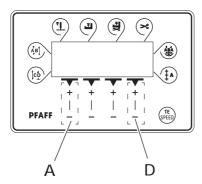


Further parameters are listed in the Motor Instruction Manual.

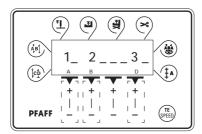
12 - 42 **PFAFF** 

#### 12.11.04 Reset / Cold start

After selecting the reset menu, by pressing the corresponding key it is possible to delete seam parameters, delete seam programs and to carry out a cold start.



 Press and hold "+" on keys A and D and switch on the machine, see Chapter 7.01 Main switch.





Resetting the seam parameters

• Press "+"on key "A".

All parameters are deleted, the display "—rE—" appears for a short time on the screen.



Resetting the seam programs

Press "+"on key "B".

All seam programs are deleted, the display "—rE—nA" appears for a short time on the screen.



Cold start

Press "+" on key "D".

With the exception of the value for the machine class, the values of the machine control unit are set back to their basic values, the display "—COLd—" appears for a short time on the screen.



After the cold start all programmed values are set back to their status at the time of delivery. For this reason after a cold start it is necessary to re-enter first the parameter "799" and then the parameter "700".

#### 12.12 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 the PC (serial interface or appropriate USB-adapter) and the machine control unit (RS232).
- Switch on the PC and start the PFP boot program.
- Select the machine type.
- Press the "programming" button.
- An extra program (quick loader) is started.
- Switch on the machine within 60 seconds.
- The software update is carried out, the update progress is shown on the bar display.
- When the update has been completed, the message "software update successfully completed" appears.



If this message does not appear, the entire procedure must be repeated! The machine is not safe for operation until the programming has been completed successfully and without faults.

- Switch off the machine and end the guick loader and PFP boot program.
- End the connection between the PC and the 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.

12 - 44 **PFAFF** 

# 12.13 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

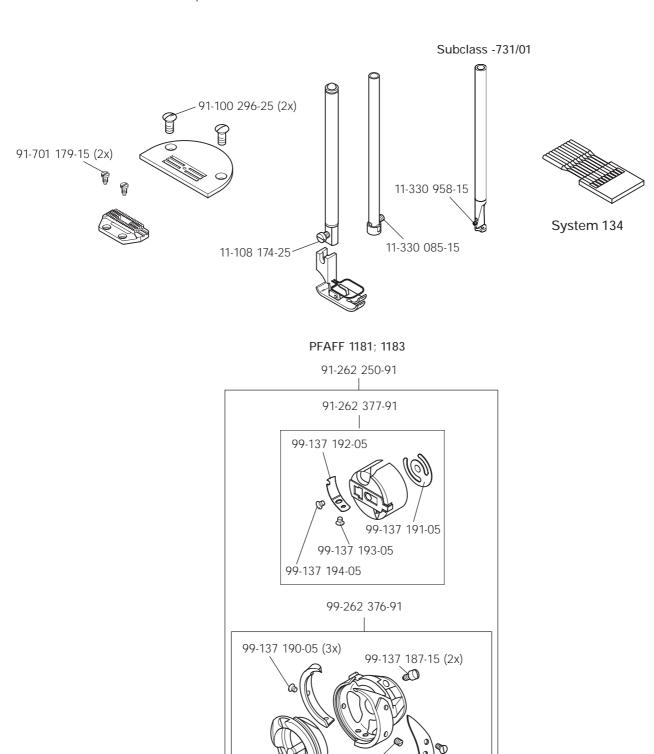
## 13 Wearing parts



This list indicates the most important wearing parts.

You can request a detailed parts list for the complete made

You can request a detailed parts list for the complete machine under parts number 296-12-18 453.

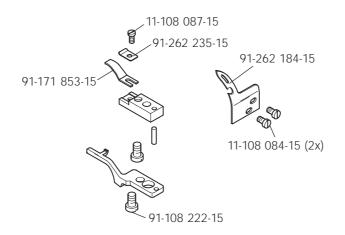


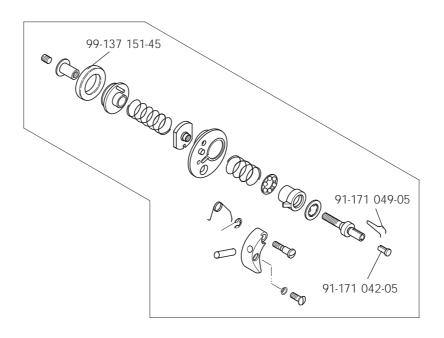


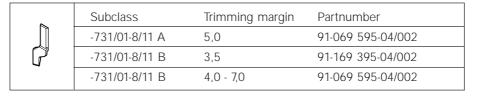
12 - 1 **PFAFF** 

99-137 189-05 (4x)

99-137 186-05









### PFAFF Industrie Maschinen AG

Postfach 3020 D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

Telefon: (0631) 200-0 Telefax: (0631) 17202

E-Mail: info@pfaff-industrial.com

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